"THE MATERIAL HEREIN IS FOR INFORMATION PURPOSES ONLY ANO IS SUBJECT TO CHANGE WITHOUT NOTICE. OIGITAL EQUIPMENT CORPORATION ASSUMES NO RESPONSIBILITY FOR ANY ERRORS WHICH MAY APPEAR HEREIN."

D-CS-L0001-0-1 thru -0-30

## FIELD MAINTENANCE PRINT SET

"THIS DRAWING AND SPECIFICATIONS, HEREIN, ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION, COPYRIGHT © 1981

## **TABLE OF CONTENTS**

FPA Circuit Schematic

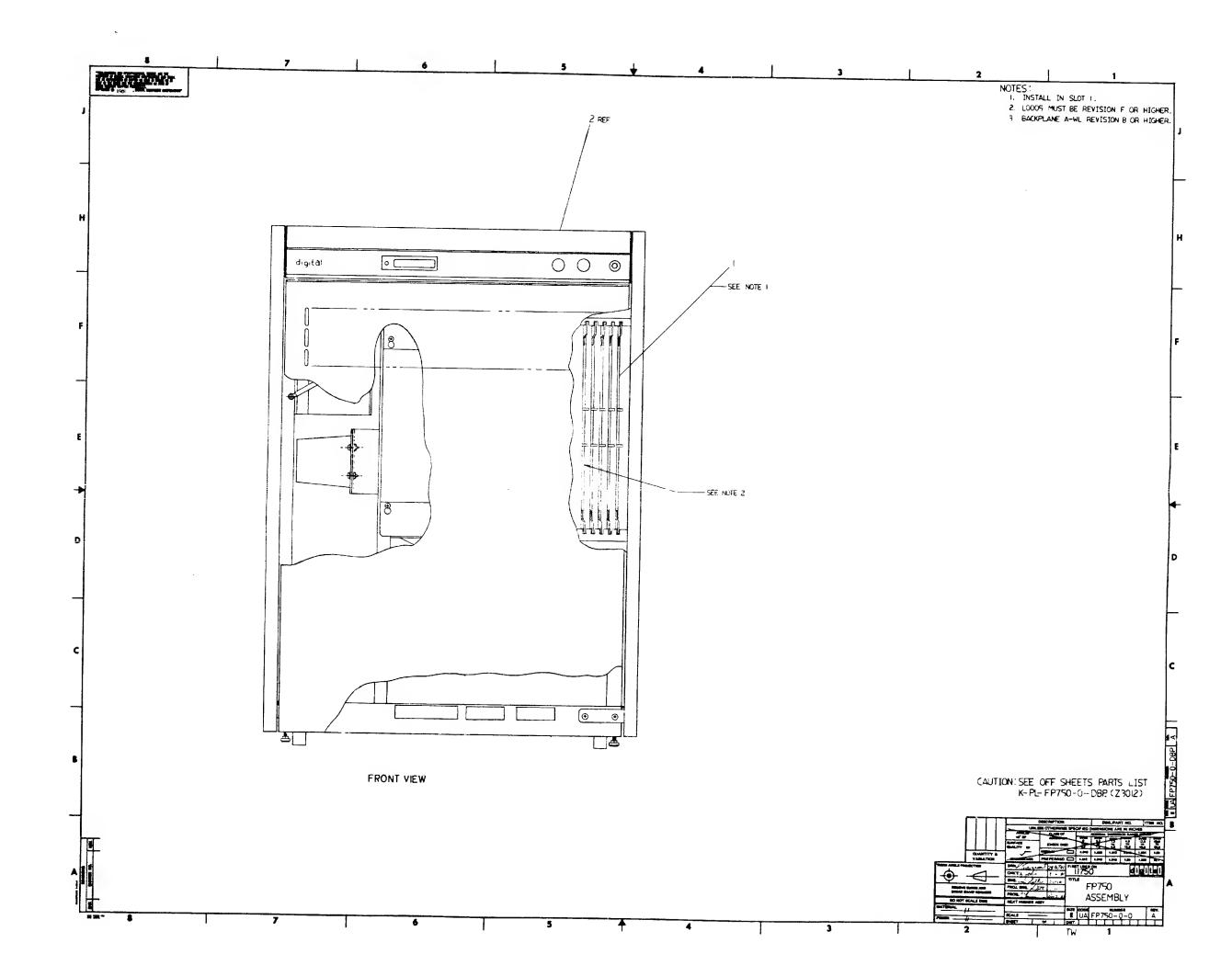
B-TC--FP750-0-1 FP750
E-UA-FP750-0-0 FP750
K-PL-FP750-0-DBP FP750
B-DD-L0001-0-0 FPA
E-UA-L0001-0-0 FPA Unit Assembly
K-PL-L0001-0-DBP FPA Parts List
E-EC-5013880-0-0 FPA Etch Cut Drawing

UNIT VARIATIONS COVERED BY THIS PRINT SET	
FP750	
11170	
	ļ
•	
· · · · · · · · · · · · · · · · · · ·	
***	

Field Maintenance Print Set

Digital Equipment Corporation MP01269

SIZE CODE FP750-0 DATE USED ON OPTION/MODEL digital 290cT81 Monagrant 11750 TITLE: FP750 CHK'D DATE 3 DEC 81 **ASSEMBLY** PROJ. ENG. DATE SIZE TC NUMBER REV. FP750-0-1 FIELD SERV. DATE Α DIST. SHEET I OF **DRB 124** 



AUTOMATED BY PRILST.3P(	•	PARTS LIST DESCRIPTION	QUANTITY PER VARIATION	SHEET A1 OF A1
1 1 E-UA-L0001-0-0 2 2 E-UA-11750-0-0 3 3 A-SP-3700658-0	L0001-00 11750-AA 3-0 3700658-01	FLOATING POINT ACCELERATOR KA750,MS750-AA,TU58-AA,DZ11-B,I PKG. PROCESSOR FP750	DD REF REF	

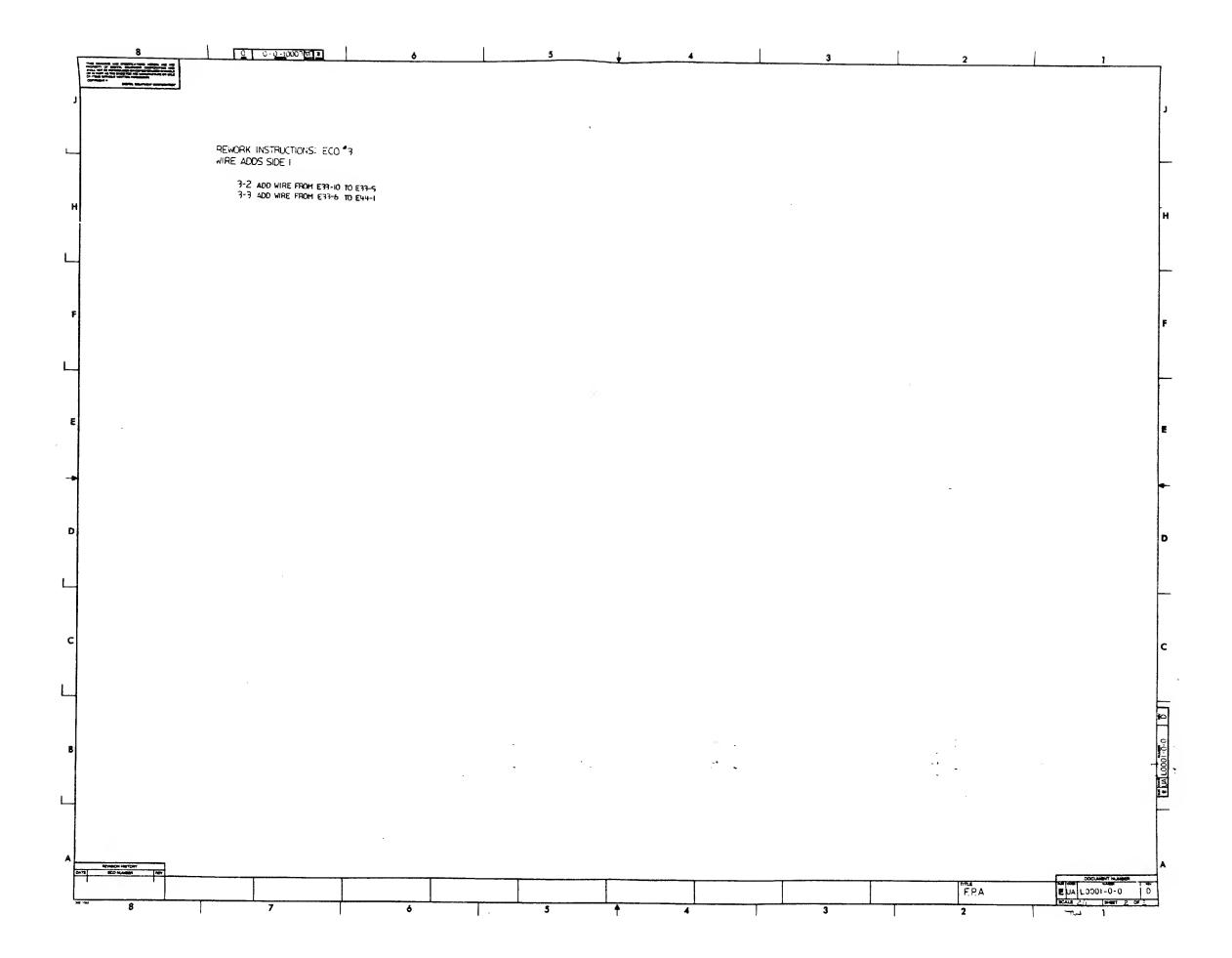
+	++++	++++++++++++	++++	++++++++++++++++++	+++++++	+++++	++++++++	++++++++++	++++++	++++++	++++++++++++	-++++++
	++++	REVISION HISTORY	++++	BASIC PART NO: FP750	DRN:	P. T	OUSIGNANT	DATE: 07-DEC	C-81 !	D	IGIIT	A
	ENG!	FCO NUMBER	.KEV	!SECIION A OF A !++++++++++	! +++++++++ !	-+++	++++++++	+++++++++	+++++++ !T:	++++!+ <del>+</del> ITLE	-!+++!+++!+++!+++!	+++ +++
		INITIAL	A	SECTION. VARIATION INDEX		L. LI	EVIN ++++++++	DATE: 07-DEC	-81	FP750 AS		į
	i			[8]	DES.ENG.:	D. S.	ITLER	DATE: 07-DEC	!			i
	i			[C]	RESP.ENG.:	D C:	**************************************	+++++++++++     DOTE:	.++++ ++		DOCUMENT NUMBER	++++++
	į	·		[D]	+++++++++++   ++++++++++	.++++		++++++++++	++++ S]	ZE CODE	NUMBER	REV
	i	i	j. ·		MFG.ENG.:			DATE: 07-DEC	-81 K	( PL	FP750-0-DBP	A
	į			[F]	ASSEMBLY NU E-UA-FP750-	MBER:		TOP DOCUMENT	NUMBER	?:		EDIT #
	+++!	THIS DRHWING H	INII SE	PECIFICATIONS HEREIN ORE	THE PROPERT	++++ Y OF	DIGITAL FOLI	ITOMENT CODDO	POTTON	UNID CITU	THE BERRARIA	+++++
		OR COPIED OR U	ISED 1	IN WHOLE OR IN PHRI HS THE	. BH515 FUK	IHE P	IHNUF AC LURF	OR SALE OF I	TEMS UT	:THOUT นี่ลี	ITTEN PERMISSION.	בט !
! (	-+++	+++++++++++++	++++	-++++++++++++++++++	+++++++++		+++++	++++++++++	++++++	++++++	+++++++++++++	++++++

٠.

E. 8 DO - 1000 7 OO 8 DRAWING NO. PART NO. DESCRIPTION REVISIONS MODULE REVISION ABCBEI B-DD-L0001-0-0 2 FPA DRAWING DIRECTORY ABCØE E-UA-L000 I-0-0 2 FPA UNIT ASSEMBLY ABCDD K-PL-L0001-0-DBP 3 ABBZD FPA PARTS LIST EMD-50138800-0 5 FPA DRILL & ETCH DRAWING A A A B B 5013880 ETCH BOARD D D D EP3EP2 K-PC-L0001-0-DBI FPA DESIGN DATA BASE IDEAD DIDEPED E-EC-5013880-0-0 | 3 FPAETCH CUT DRAWING ABCDD K-CS-L0001-D-DBS FPA DESIGNDATA BASE SUDSA BCDE D-CS-L0001-0-1 FRACTION I/O 63-48 & 31-16 AAAAA D-CS-L0001-0-2 \* FRACTION I/O 47-32 & 15-0 AAAAA D-CS-L0001-0-3 \* COARSE SHIFTER AAABB lD-CS - L0001-0-4 NS BUS TO ALUBUFFERS Ø-311A1A1A1A D-CS-L0001-0-5 NS BUS TO ALU BUFFERS32-63 A A A A A D-CS-L0001-0-6 FRACTION ALU (BYTES 7 TO 4) A A A A D-CS-L0001-0-7 | 1 | FRACTION ALU ( BYTES 3 TO Ø) A A A B B D-CS-L0001-0-8 1 MULTIPLIER REGISTER AAAAA D-CS-L0001-0-9 IPPROD MULTIPLIERS MAND AAAAA BYTES 1-3 D-C S-L0001-0-10 1 \* PPROD MULTIPLIERS MAND A A A B B BYTES 4-7 D-CS-L0001-0-1111 \* PARTIAL PRODUCT ADDERS A A A A D-CS-L0001-0-12| 1 | \* PARTIAL PRODUCT ADDER CLASA A A A A D.(S.L0001-0-1311 \* PARTIAL PRODUCT REGISTER A A A A A D-CS-L0001-0-14 1 \* ALIGN NORMALIZE, SHIFT AAAAA LOGIC: EXPC NOTES: \*CONTROL SOURCE IS DATA BASE B C D E NO CONTROLLED PAPER ORIGINALS EXIST 12/81 TWOC1 3-82TW002 10-82TW003 1-84 TW004 REVISIONS CHG NO. DATE EP750 DRM TITLE "THIS DRAWING AND SPECIFICATIONS, HEREIN, ARE THE PRO-9/9/91 PERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL FPA Em o Fiftel NOT BE REPRODUCED OR COPIED DR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF SIZE CODE NUMBER ENG. ITEMS WITHOUT WRITTEN PERMISSION. B DD L0001-0-0 COPYRIGHT® 1981 DIGITAL EQUIPMENT CORPORATION LNL 9-21-81 SHEET | OF 2

8 DD | C0001-0-0 SIZE CODE DRAWING NO. PART NO. DESCRIPTION **REVISIONS** D-CS-L0001-0-15 1 \* EXPONENT LOGIC, SHORT LIT A A A A LATCH D- CS-L0001-0-16 1 \* SIGNLOGIC, EXP ZERO, RES A B C C C OP DETECT D-CS-L0001-0-17 1 \* OPCODE ENTRY, STEP, CTR, AABBB BRANCH LOGIC D-CS-L0001-0-18 1 CONTROL STORE BYTES 9 TO 5 A A A A D-C5-L0001-0-19 1 \* CONTROL STORE BYTES 4TO Ø A A A A D-CS-L0001-0-20 1 \* CLOCK LOGIC AAAAB D-CS - L0001-0-21 1 \* CONDITION CODES FPA PRESENT A A A A PWR-GND DECOUPLING D-CS-L0001-0-22 1 \* AAABB D-CS - L0001-0-23 1 \* MIC RO DIAG TEST CONNECTORS A A A A A D-C5 - L0001-0-24 1 \* FORWARD REFERENCE AAAAA D-CS-L0001-0.25 | \* AAABB FORWARD REFERENCE D-CS-L0001-0.26 1 \* FORWARD REFERENCE ABBBB D-CS-L0001-0-27 | \* FORWARD REFERENCE AAAAA D-CS-L0001-0-28 1 \* FORWARD REFERENCE ABCCC D-CS-L0001-0-29 1 \* FORWARD REFERENCE AAAAB D-CS-L0001-0-30 1 \* FORWARD REFERENCE ΑΑΑΑΑ NOTES: \* CONTROL SOURCE IS DATABASE NO CONTROLLED PAPER ORIGINALS 12/81 TWOO1 3-82 TWOO2 10-82 TWOO3 1-84 TWOO4 REVISIONS DATE CHG NO. **EXISTS** 'THIS DRAWING AND SPECIFICATIONS, HEREIN, ARE THE PRO-USED ON OPTION/MODEL 9/9/9/ TITLE PERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL FP 750 NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN Thomas F. Wodol FPA PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. 9-9-8/ B DD LC001 - 0-0 RFY. COPYRIGHT® 1981 DIGITAL EQUIPMENT CORPORATION Έ PROD Patherson 9-21-\$1 SHEET 2 OF 2 DRB 126

digittal E150\* E+ £188 E + E123 + E148 <u>ICSOCKETS</u> CONTINUED: XEIP-HS, XEIT-H21, XEI2H-PO, XEIP-SIX SPARE 1.C. LICCATIONS ELIMINATED:E2S, E26, F47,E48. E71,E72 E147 £146 E145 + £144 10 K 1191 30262MM PET E 514 ; Eto#+ 777- (TM . = F\_4 ES)



INE ITEM TOP DO	CUMENT	MIN			(	TY PER VARI	ATION			SHEE! A	1 OF A3
INE TIEM TOP DO	COMENT	PART NUMBER REV		N REVISION LE	VEL:	<b>0</b> 0 <b>E</b> 1	RE	FERE	NCE DESIGN	NATOR	
1 1 2 2 3 3 4 4 4 5 5 5 6 6 6 7 7 7 8 8 9 9 10 10 11 11 11 12 12 13 13 14 14 15 15 16 16 17 17 18 18 19 19 20 20 21 21 21 22 22 23 23 24 24 25 25 26 26 27 27 28 28 29 29		5013880-00 1012784-00 1114384-00 1302379-00 1300316-00 1300365-00 1300447-00 1301401-00 1301775-00 1503121-00 1912728-00 1910532-00 1910533-00 1910534-00 1910534-00 1910544-00 1910545-00 1910545-00 1910548-00 1910552-00 1910552-00 1910552-00 1910552-00 1910552-00 1911712-00 1911983-00 191297-00 1912389-00	L0001 MULTI LAY .047 MFD 50 LED 105MW 35MA 75.0 .25 330.0 .25 470.0 .25 1.0 K .25 4.70 K .25 750.0 .25 B20.0 .25 2N 2369 NPN 3 74S251 MUX 74S00 NAN 74S03 NAN 74S04 INV 74S20 NAN 74S64 A-0 74S74 FF- 74S112 FF- 74S153 MUX 74S157 MUX 74S174 FF- 74S175 FF- 74S138 DECI 74S133 NANI SN 74S182 L000	ER BOARD V +80-20% GREEN W 5.0 % M 5.0	CER CFFCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC	1 70 1 4 1 4 6 2 1 1 1 1 8 1 3 1 2 1 1 3 9	CONT RECEPTIONS ON THE RECEPTION OF THE	0-C1 0-R3 1-R4 5-R10 4,R1 0 2,E1 33,E5 12,E6 12,E6 13,E5 14,E4 13,E5 14,E4	4,C16-C75 3 4,E50,E5B 4,E50,E5B 3,E67 9 9,E142 1,E66,E68 140 5	,C <b>79-</b> C83 ,E59,E63	3,E64,E46
REVISION HIS	TORY	!BASIC PART NO: 5013B80		.CASEY	!	. 02 110 04	!	Ţ			
ENG! ECO NUMBER	R !REV	SECTION A OF A		. 0.43[]	-!	03-AUG-B1	. !	1	G I		4 L 
! INITIAL DS !L0001-TW001 DS !L0001-TW003		SECTION. VARIATION INDE	CHK'D: F	.GAROFALO	! !DATE _!	: 03-AUG-B1	!TITLE ! FPA .!		PARTS	LIST	
G !L0001-TW004	! D !	! (B) ! (C) ! (D) ! (E)	: DES.ENG: D	SITLER	DATE	03-AUG-B1	! _!SIZE!(		DOCUMENT NUMBER	NUMBER_	! REV
	!	! [F] ! [H]	: !RESP.ENG.: D !	SITLER	! !DATE _!	03-AUG-81	! K !	PL !	L0001-0-	DBP	-! ! D _!
: ! !	: ! !	: [J] : [K] : [L]	! !MFG.ENG.: C !	.PATTERSON	! !DATE:	03-AUG-81	: ! RELEA	ISE D	ATE: 26-	MAR-84	
!	  -  -  -  -	! [M] ! [N]	ASSEMBLY NUMB		-	DOCUMENT NUM -L0001-0-0	1BER:	•	FILE NAM Z3016D.P	_	!EDIT #

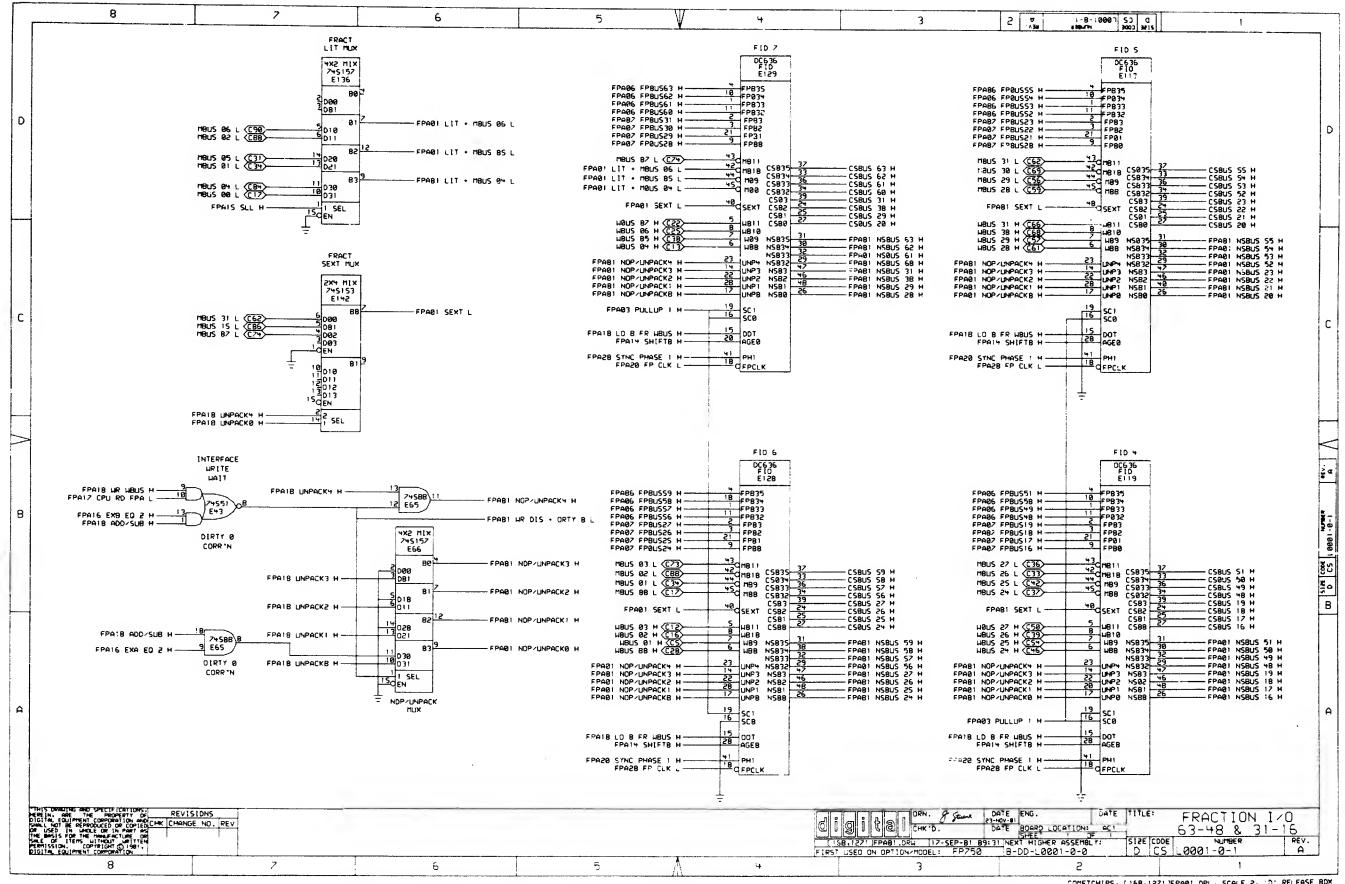
UTOMATED BY PRILST.3P(44)	MIM		RTS LIST	OTY DED WARRATE	SHEET A2 OF A3
INE ITEM TOP DOCUMENT	PART NUMBER REV	DESCRIPTION		QTY PER VARIATIO	N REFERENCE DESIGNATOR
		VAR	MATION REVISION LEVEL:	E 1	
30 30	1912660-00	74\$253	MUX 1 OF 4 (DUAL)	1	E35
31 31	1912666-00		BUFFER GATE-QUAD 21N	3	E13,E39,E57
32 32	1912746-00	DEC 74S37	NAND GATE-QUAD 21N	1	E52
33 33	1913340-00		OR GATE-QUAD 21N	1	E36
34 34	1913462-00		OCTAL BUFFER, INVERTI	1	E34
35 35	1913671-00	74S374		9	E11,E70,E78,E86,E92,E108,E123,
				CONT	E127,E150
36 36	1913700-00	745381	ALU-4BIT	14	E79,E80,E93-E95,E101,E109,E110
				CONT	E124-E126,E132,E151,E152
37 37	1914085-00	74S260		3	E9,E55,E141
38 38	1914686-00		8 81POLAR, LS, 400-GATE	2	E90,E120
39 39	1914710-00	DC 636	BIPOLAR, LS, 400-GATE	8	E73,E82,E104,E113,E114,E119,
40 40	404474: 55	0.0			E128,E129
40 40	1914711-00	DC 637	BIPOLAR, LS, 400-GATE	4	E83,E89, <b>E</b> 105,E98
41 41	1914712-00	DC 638	BIPOLAR, LS, 400-GATE	8	E74,E75,E84,E99,E106,E115,E121
42 42	1011710 00	D0	0.1.001.4.0 1.0.		E130
42 42 43 43	1914713-00 1914715-00	DC 639 DC 641	BIPOLAR, LS, 400-GATE	2	E88,E97
44 44	1914715-00		BIPOLAR, LS, 400-GATE	2	E1,E2
45 45	1914715-00		BIPOLAR, LS, 400-GATE	. 1	E3
46 46	1915193-00	LS241	BIPOLAR, LS, 400-GATE	1	E4
70 70	1313133-00	L524+	DRIVER, LINE, OCTAL, T	8	E76.E77.E91,E96.E107.E118.E122
47 47	1915698-00		MULTIPLIER 8X8	CONT 7	
48 48	23328A1-00	A1-07	HOLITPLIER 8X8	1	E85.E87,E100,E102,E116,E117,E13
49 49	23621A2-00	A2-05		1	E6
50 50	23626A2-00	A2-05		1	E41
51 51	23074B1-00	B1-01		1	E32
52 52	23056F2-00	F2-01		1	E61
53 53	23057F2-00	F2-01		1	E62 -
54 54	1017472-00	10 MFD	35V +75-10% AL EL	6	C1-C6
55 55	23043D2-00	D2-01		1	E15
56 56	23044D2-00	D2-01		1	E16
57 57	23045D2-00	D2-01		1	E17
58 58	23046D2-00	D2-01		1	E19
59 59	23047D2-00	D2-01		1	E20
60 60	23048D2-00	D2-01		1	<b>E</b> 22
61 61	23049D2-00	D2-01		1	E23
62 62 63 63	23050D2-00	D2-01		1	E21
63 63 64 64	23051D2-00	D2-01		1	E18
65 65	23052D2-00	D2-01		1	E24
66 66	23053D2-00	D2-01	COUNTED CYPICUS	1	E56
67 67	1910650-00	74161	COUNTER, SYNCHR, UP	1	E38
68 68	1300444-00 1215006-02	3.90 K	.25 W 5.0 % CF	2	R12,R16
69 69	1215006-02		16PIN DIP TIN SOLD	5	XE6,XE8,XE37,XE41,XE143
70 70	1215006-03		18PIN DIP TIN SOLD 20PIN DIP TIN SOLD	2 1	XE61, XE62
71 71	1215006-04		20PIN DIP TIN SOLD 22PIN DIP TIN SOLD	1 1 1	XE32 XE15-XE24,XE56
72 72	1215924-00	SKT, IC	48PIN DIP GOLD FOR	28	XE1-XE4, XE73-XE75, XE82-XE84,
ΙT	ITLE				
DIGITAL	FPA		: !SECTION A		!CODE! DOCUMENT NUMBER ! REV
_ ;	••		1		PL ! L0001-0-DBP ! D !

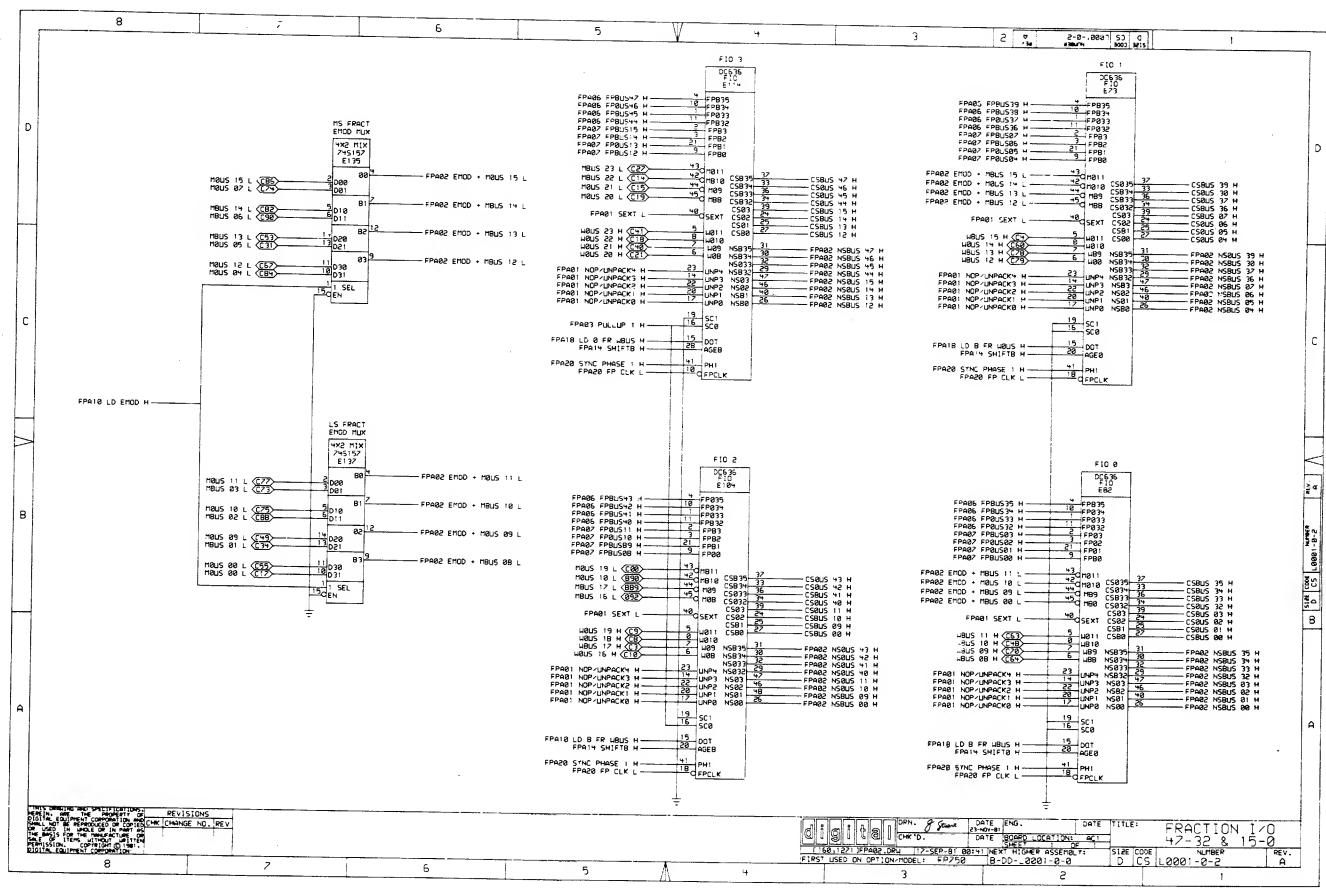
	MATED BY PRTLST.3P(44)	MIM		5 T	QTY PER VARIAT	SHEET A3 OF A3
LINE	ITEM TOP DOCUMENT	PART NUMBER REV	DESCRIPTION VARIATION REVISION	ON LEVEL:	00 E1	REFERENCE DESIGNATOR
73 74 75 76 77 78 79 80	74	1215935-00 1215936-00 1216988-02 9000024-01 23968A9-00 1211004-05 1300271-00 23971A9-00	HEAT SINK, 2 HANDLE, MODULE, HEX TWO E	10DX0.192	CON CON 28 28 1 12. 17 2 1	IT XE113-XE115.XE119-XE121,

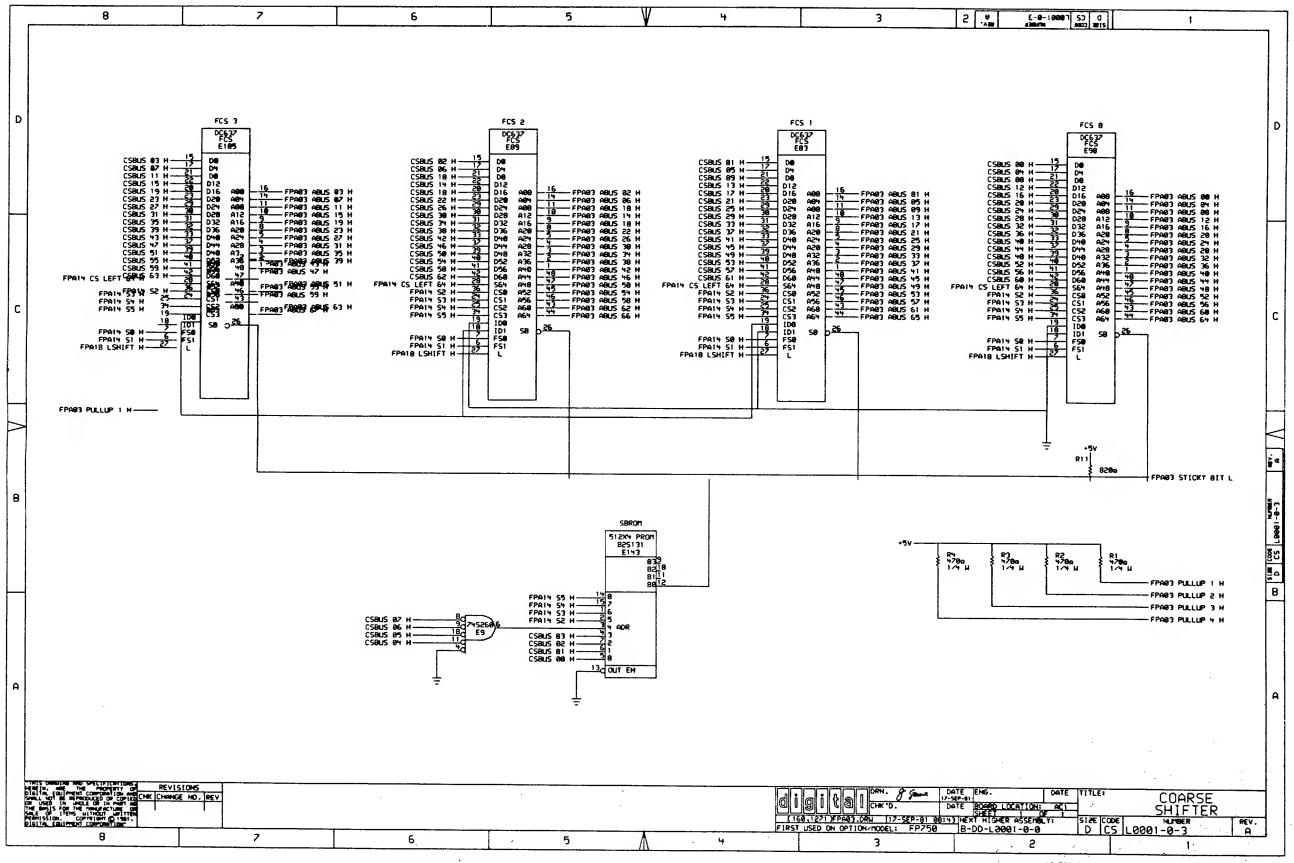
!TITLE !		!SIZE!CODE! DOCUMENT NUMBER	! REV	<del>-</del>
!DIGITAL! FPA	SECTION A OF A !		1	!
	!	! K ! PL ! L0001-0-DBP	! D '	!
	<u></u> !	<u> </u>	!'	. !

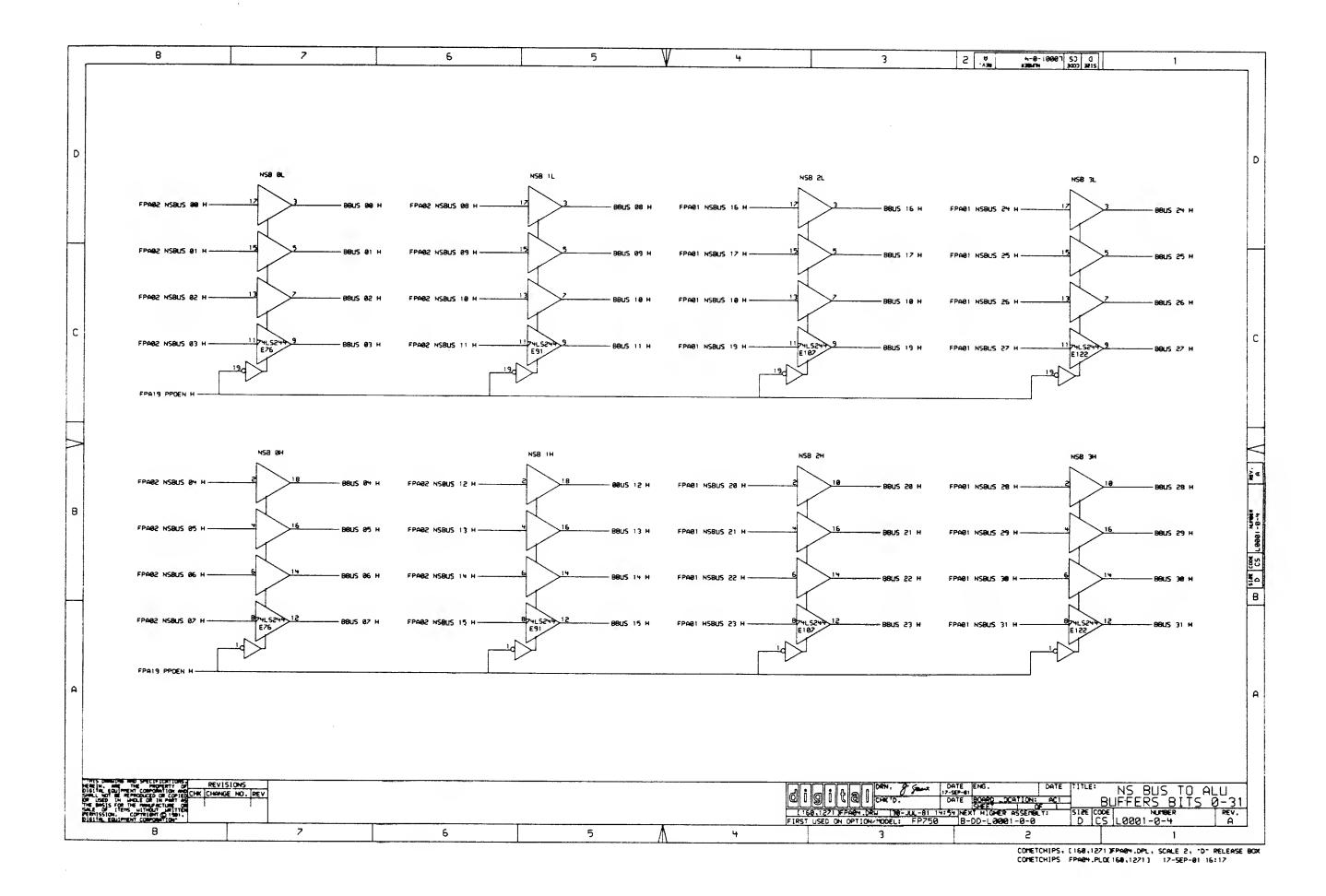
.

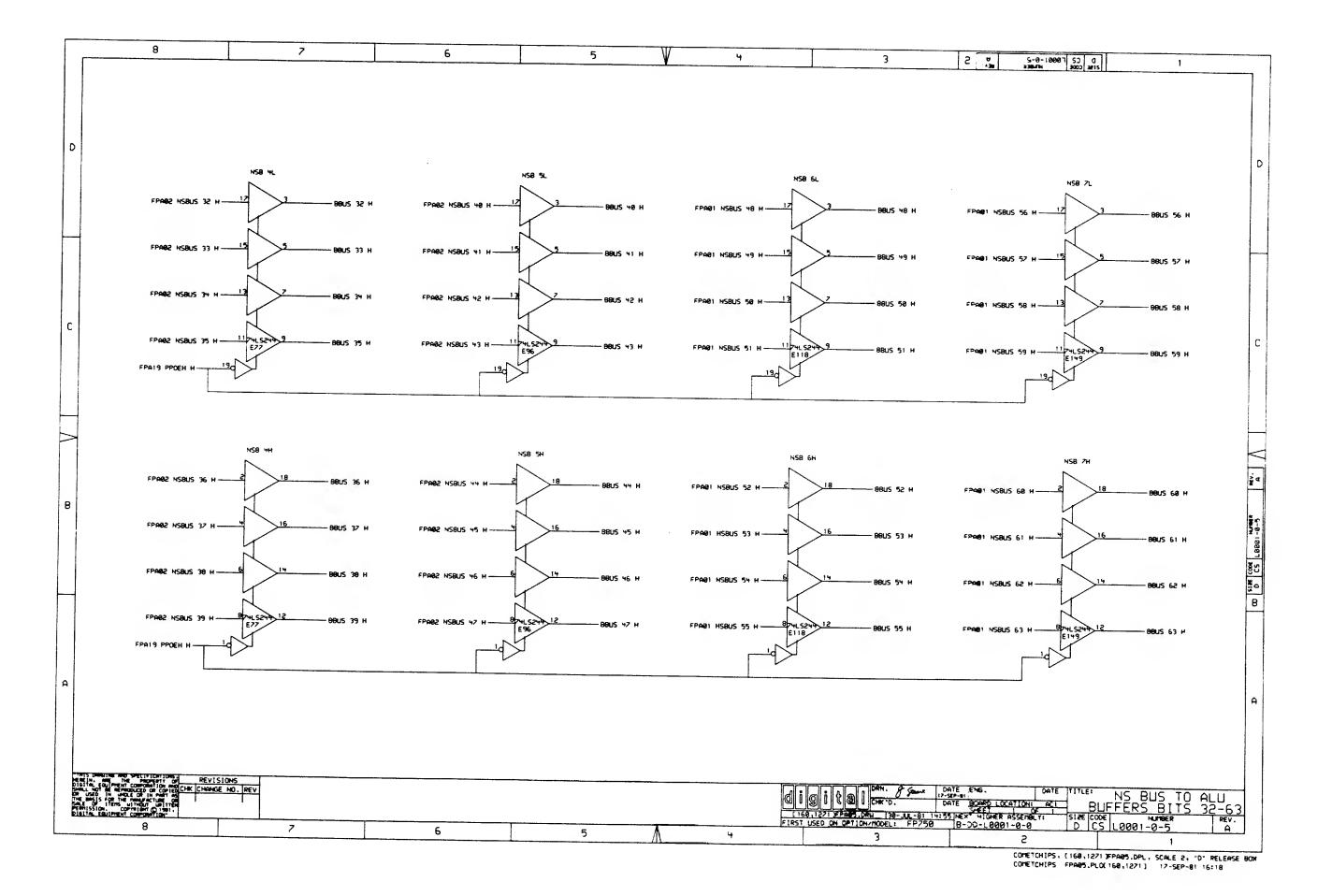
.

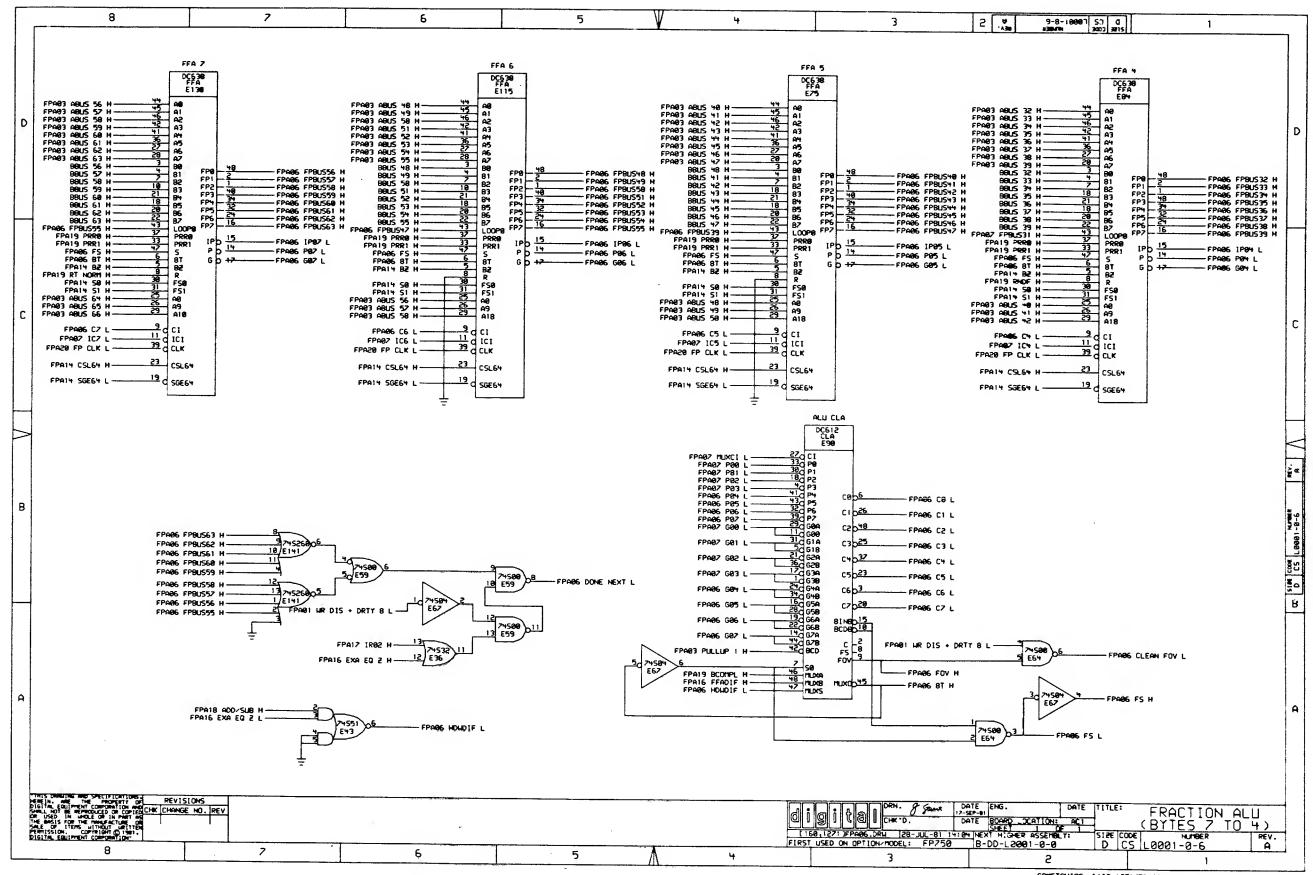


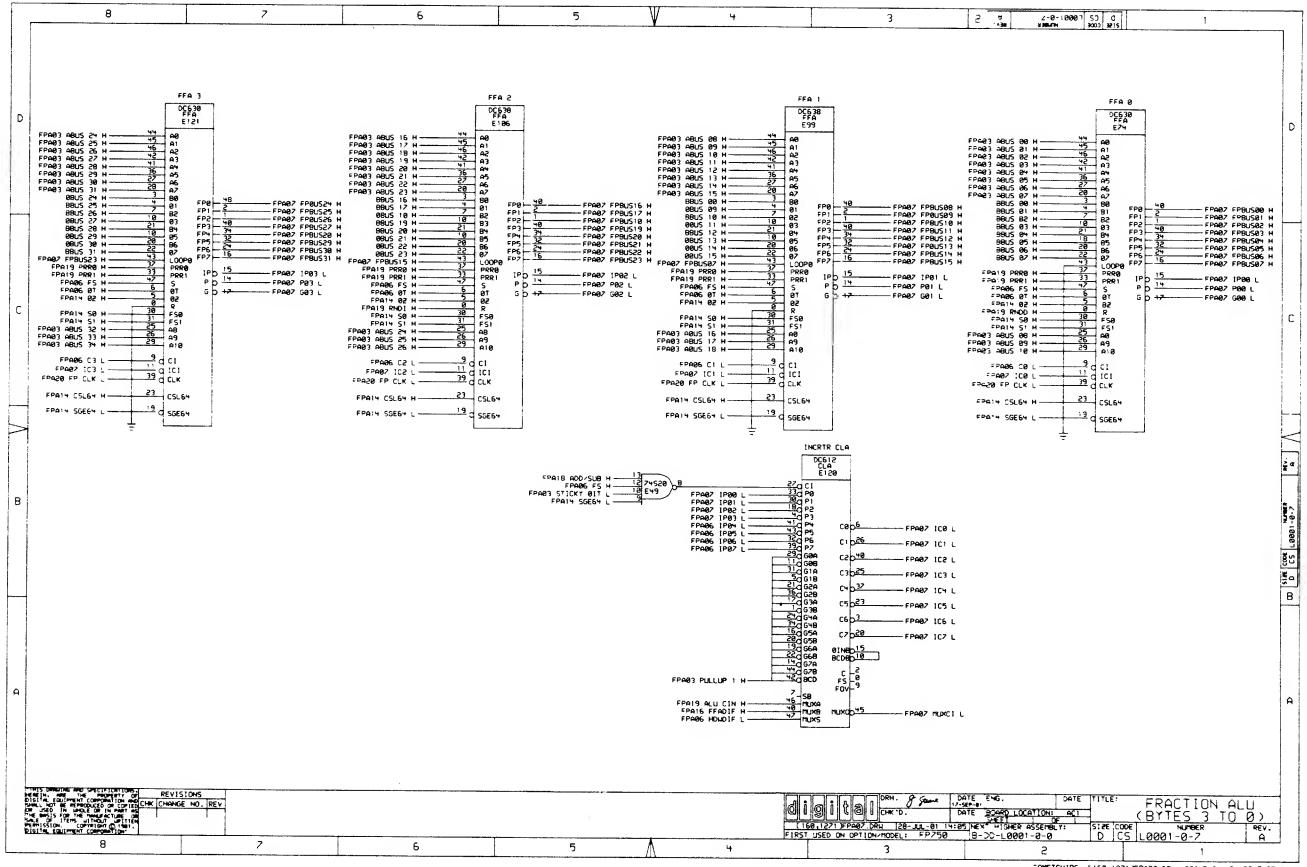


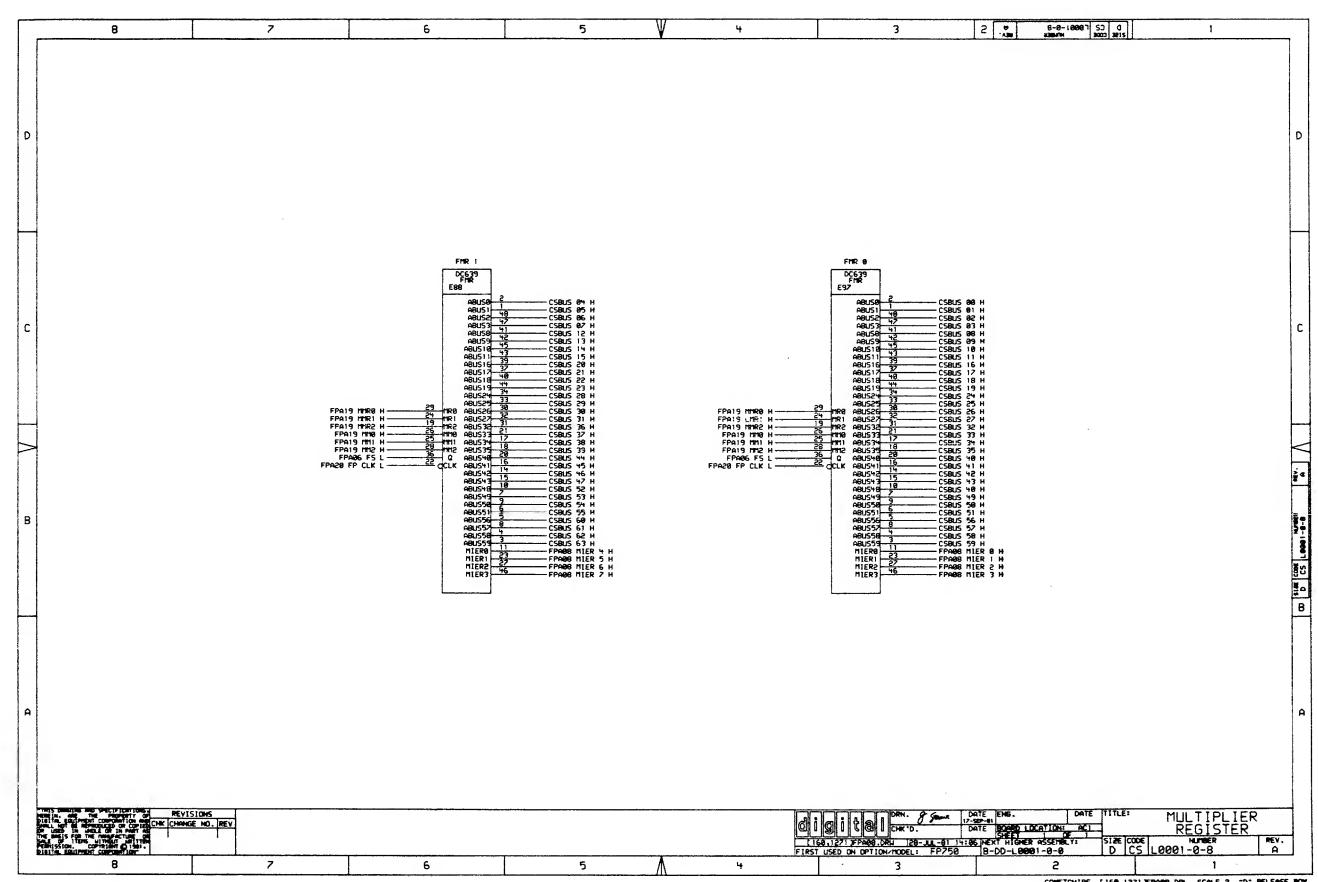


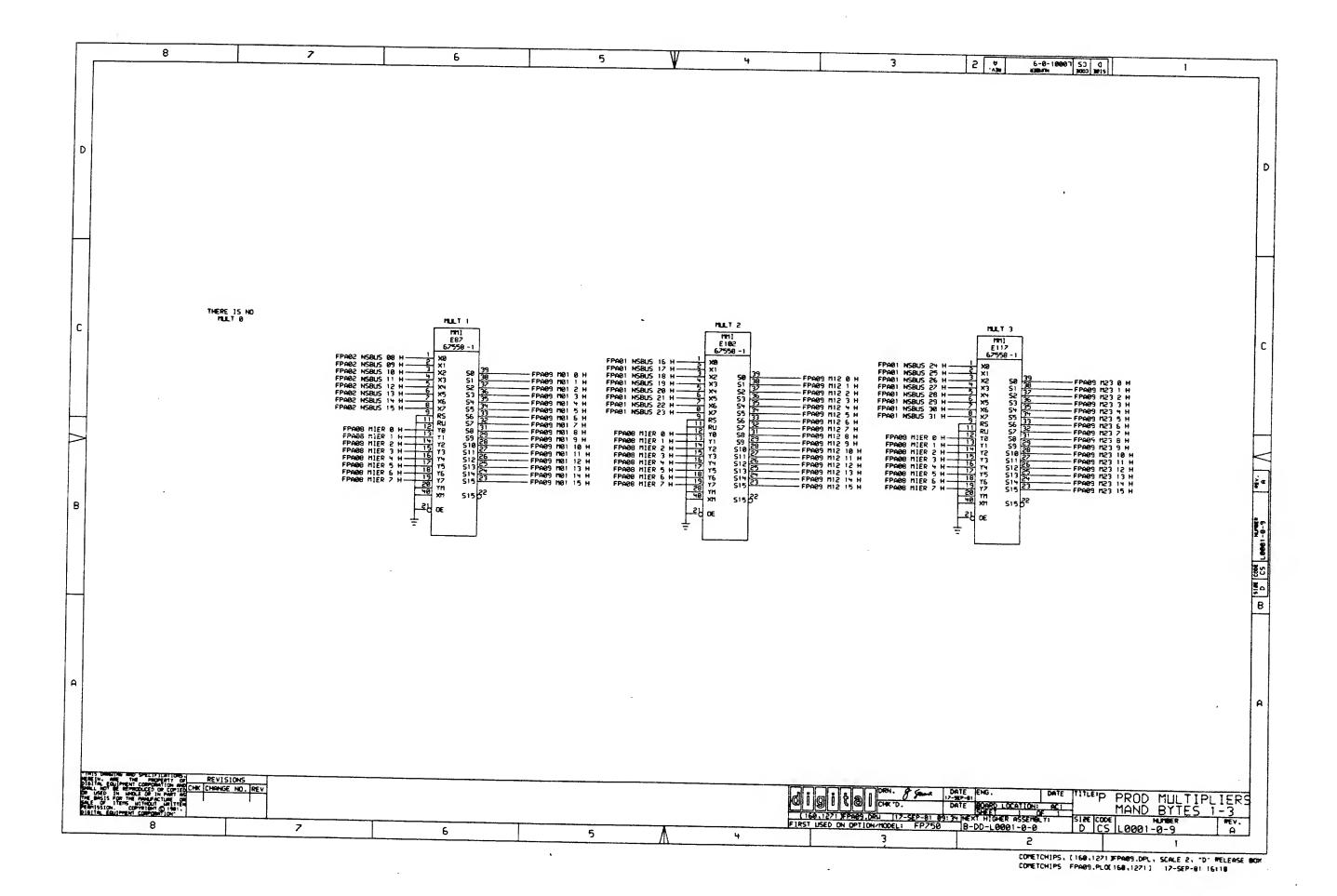


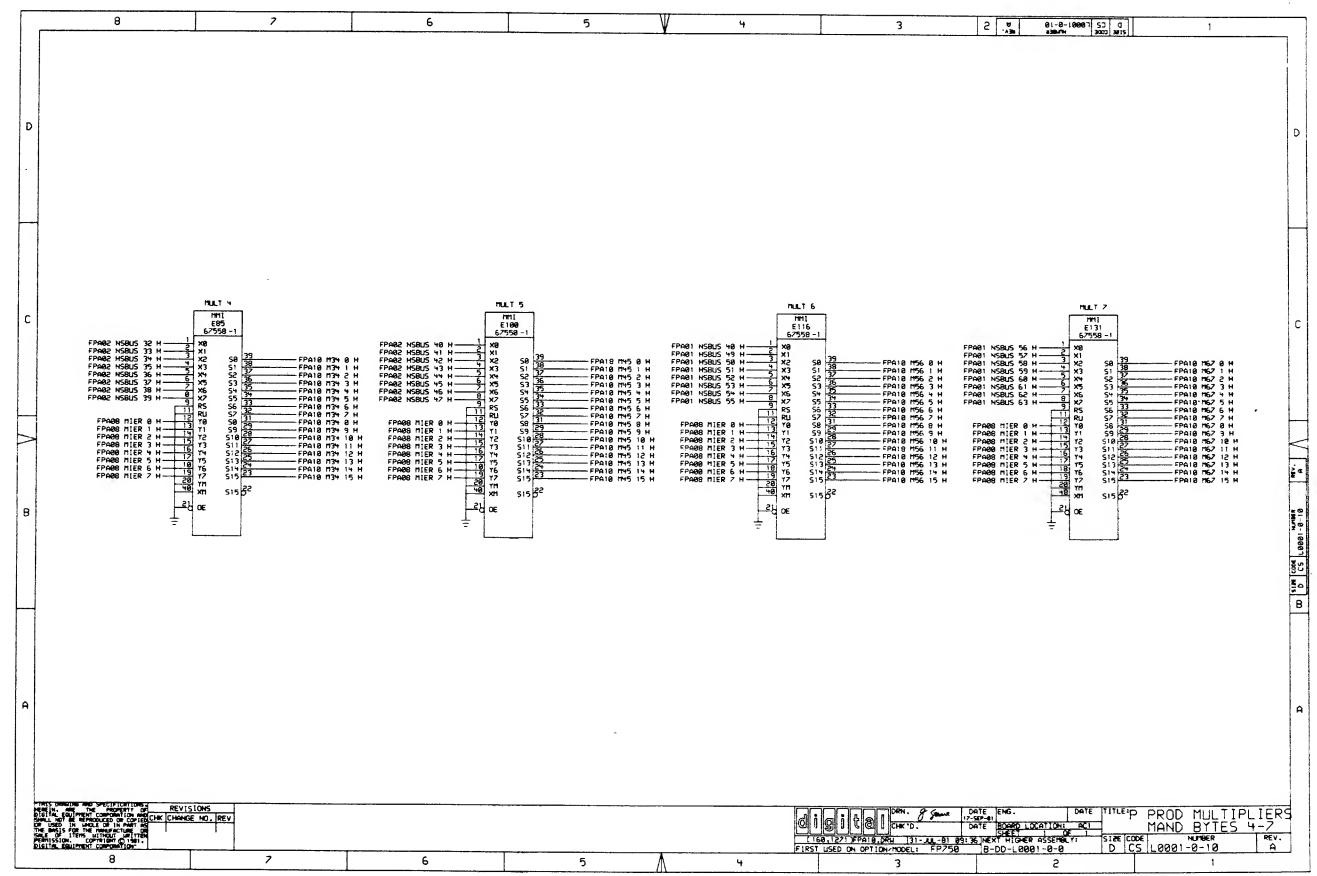


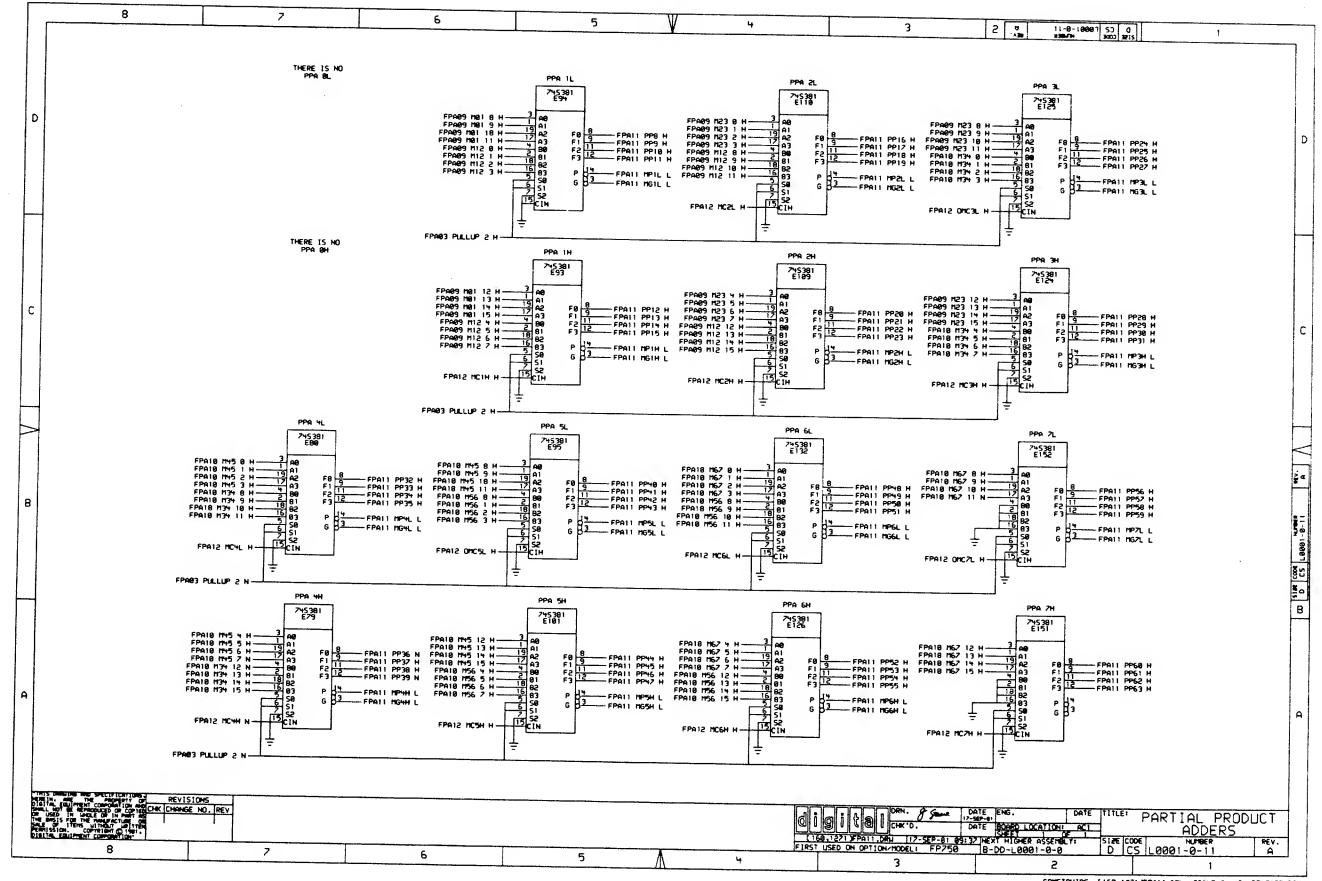


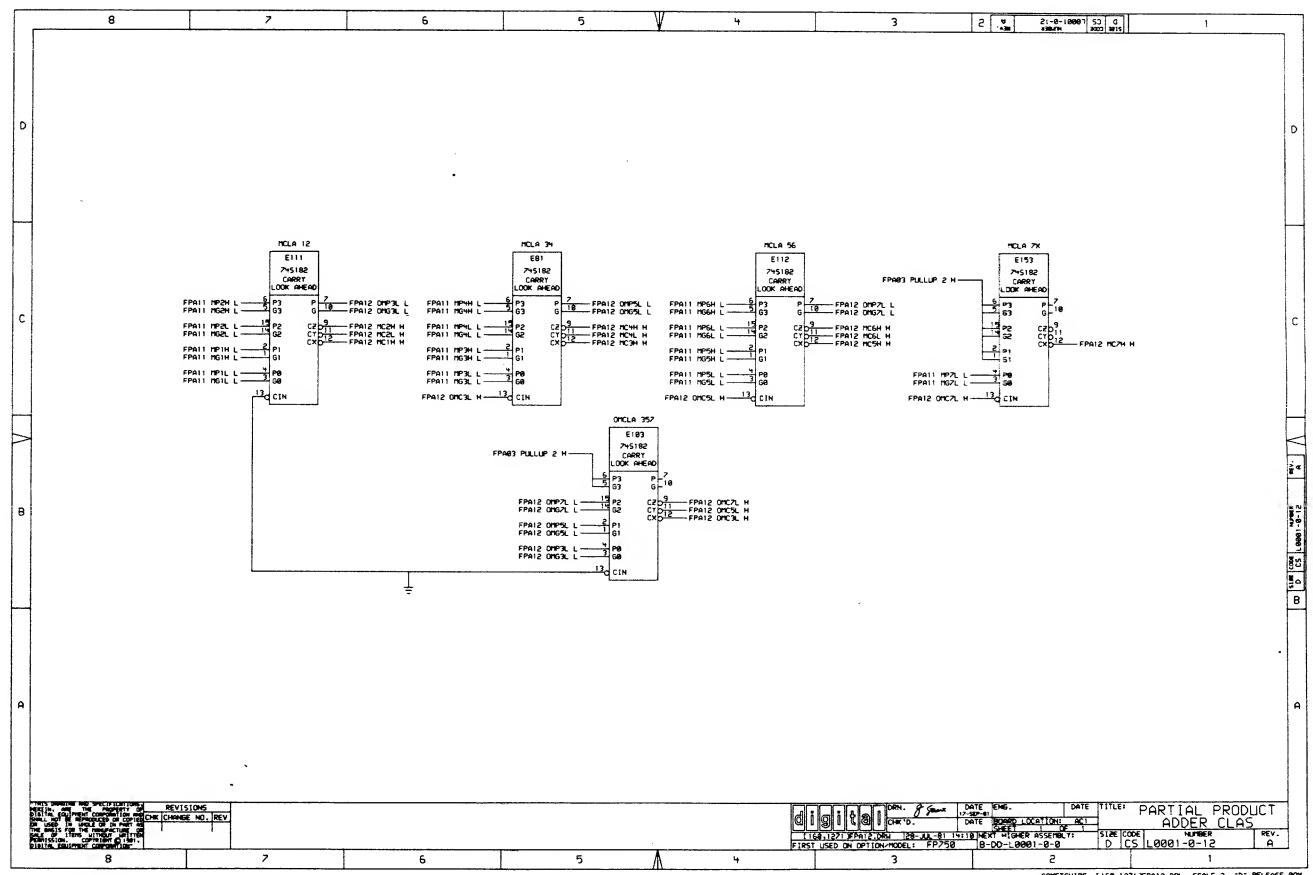


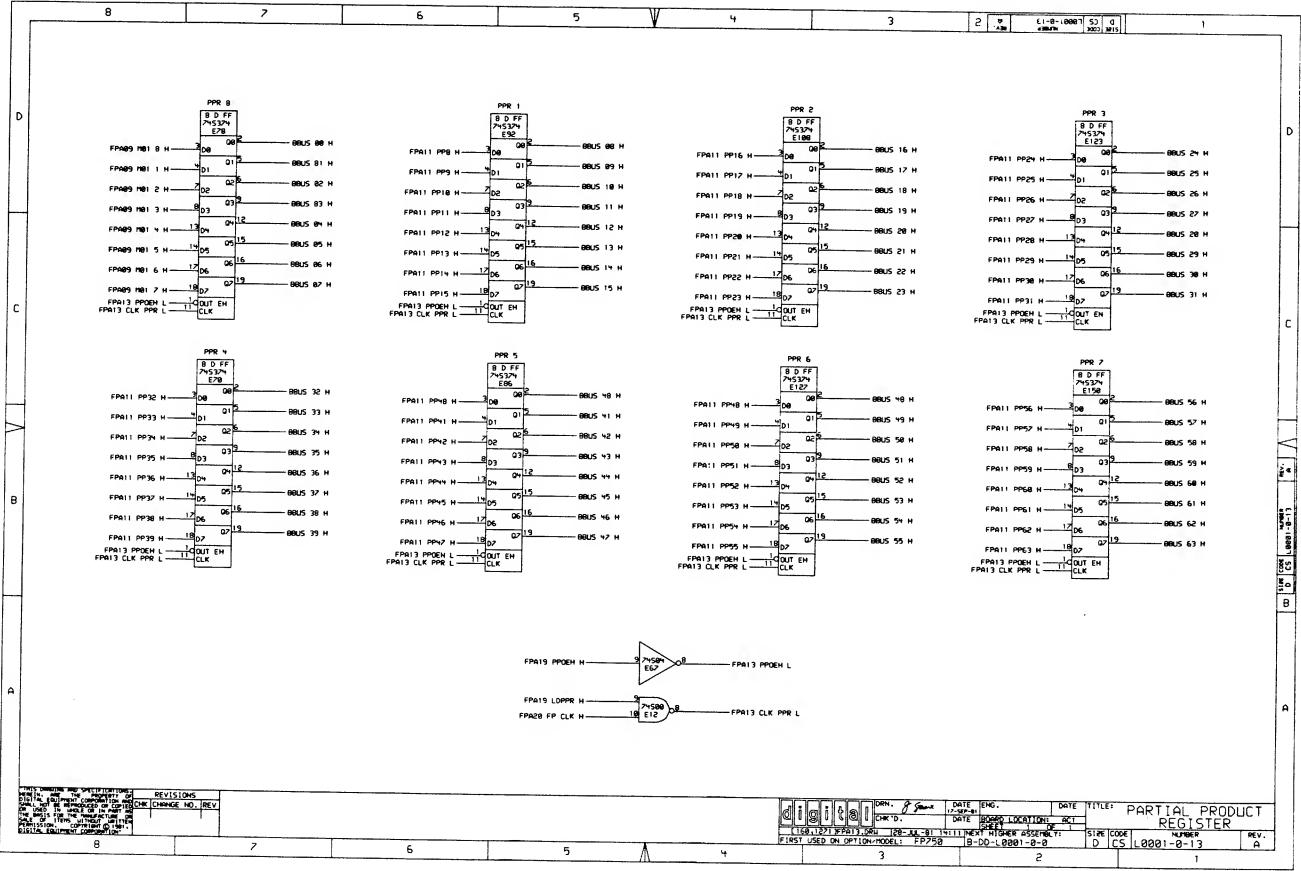


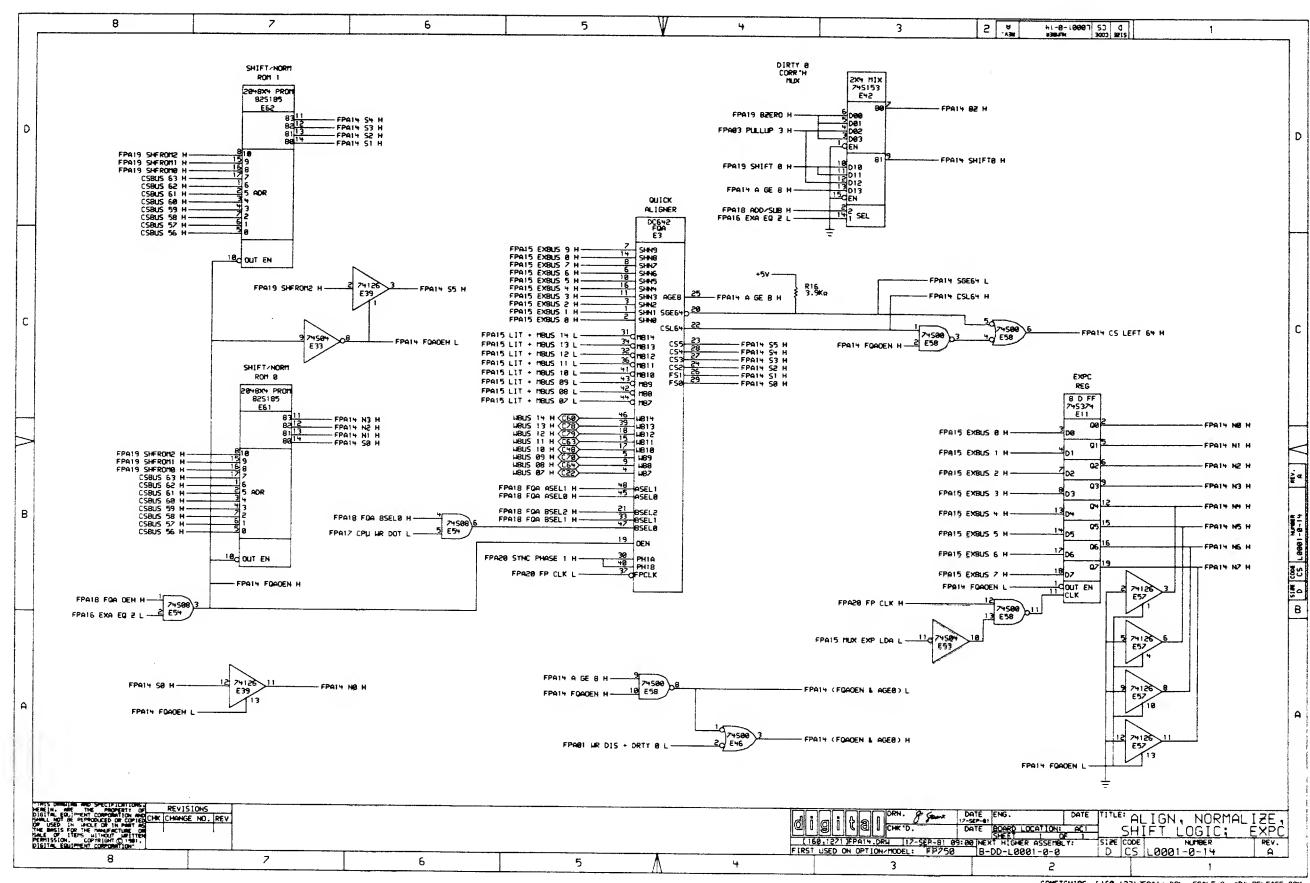


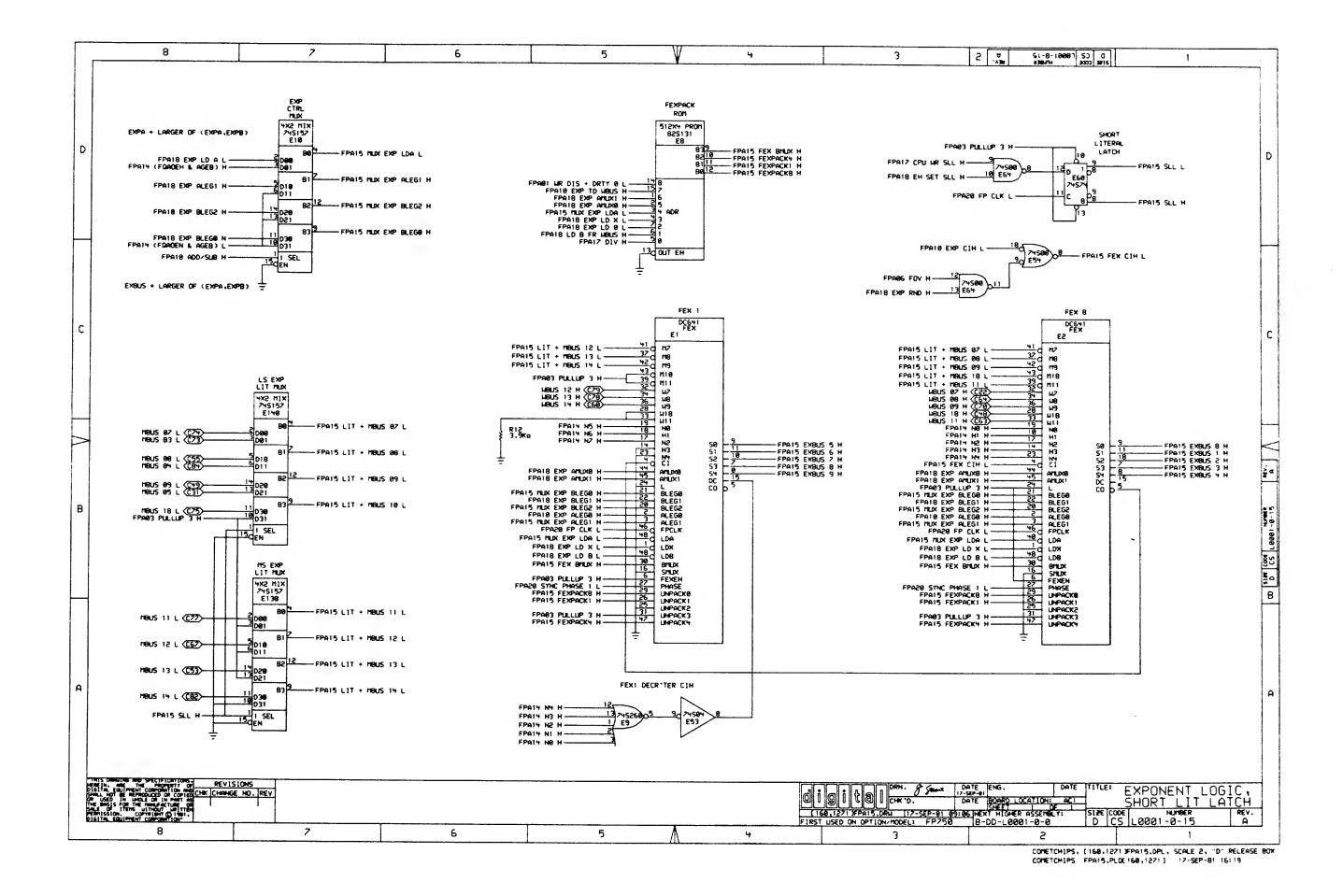


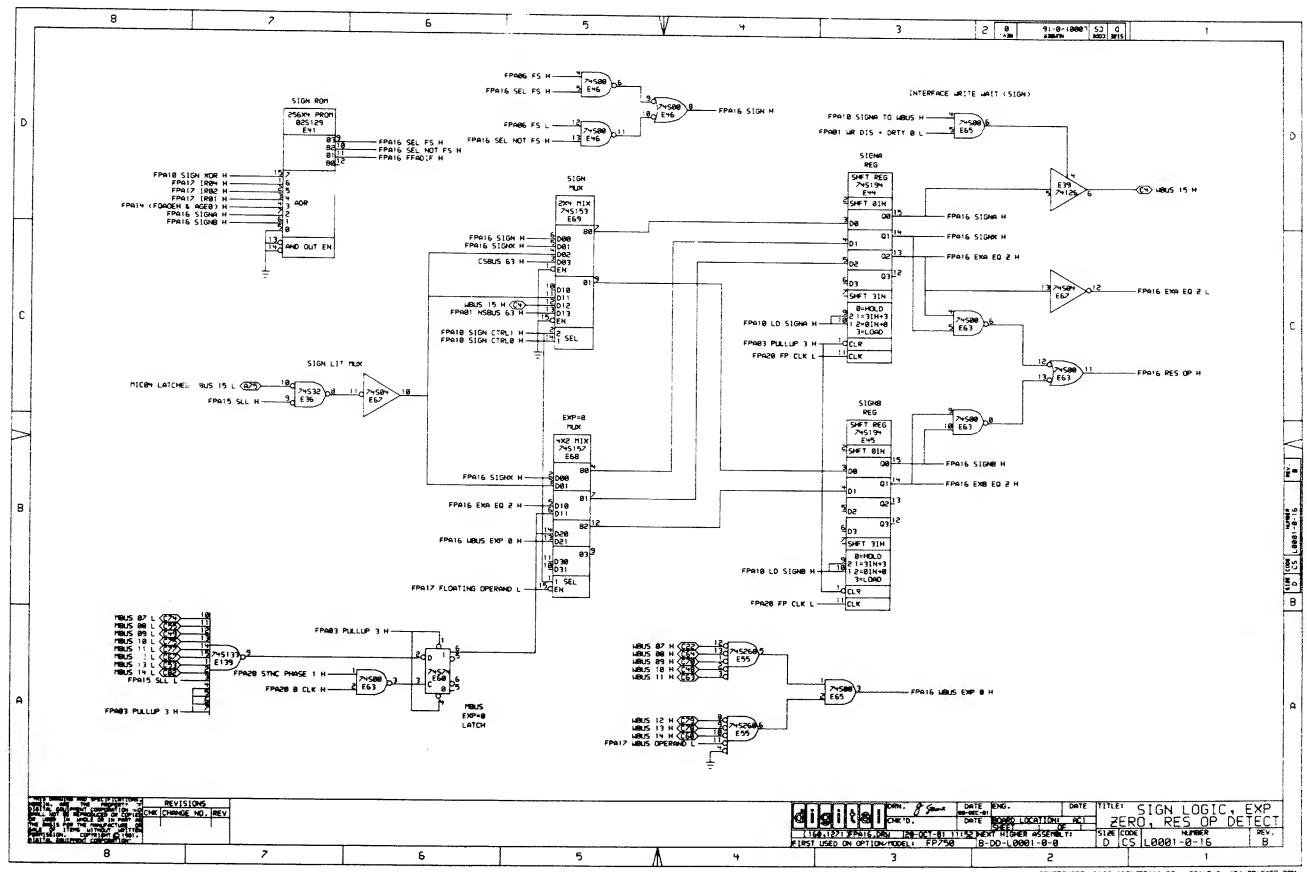


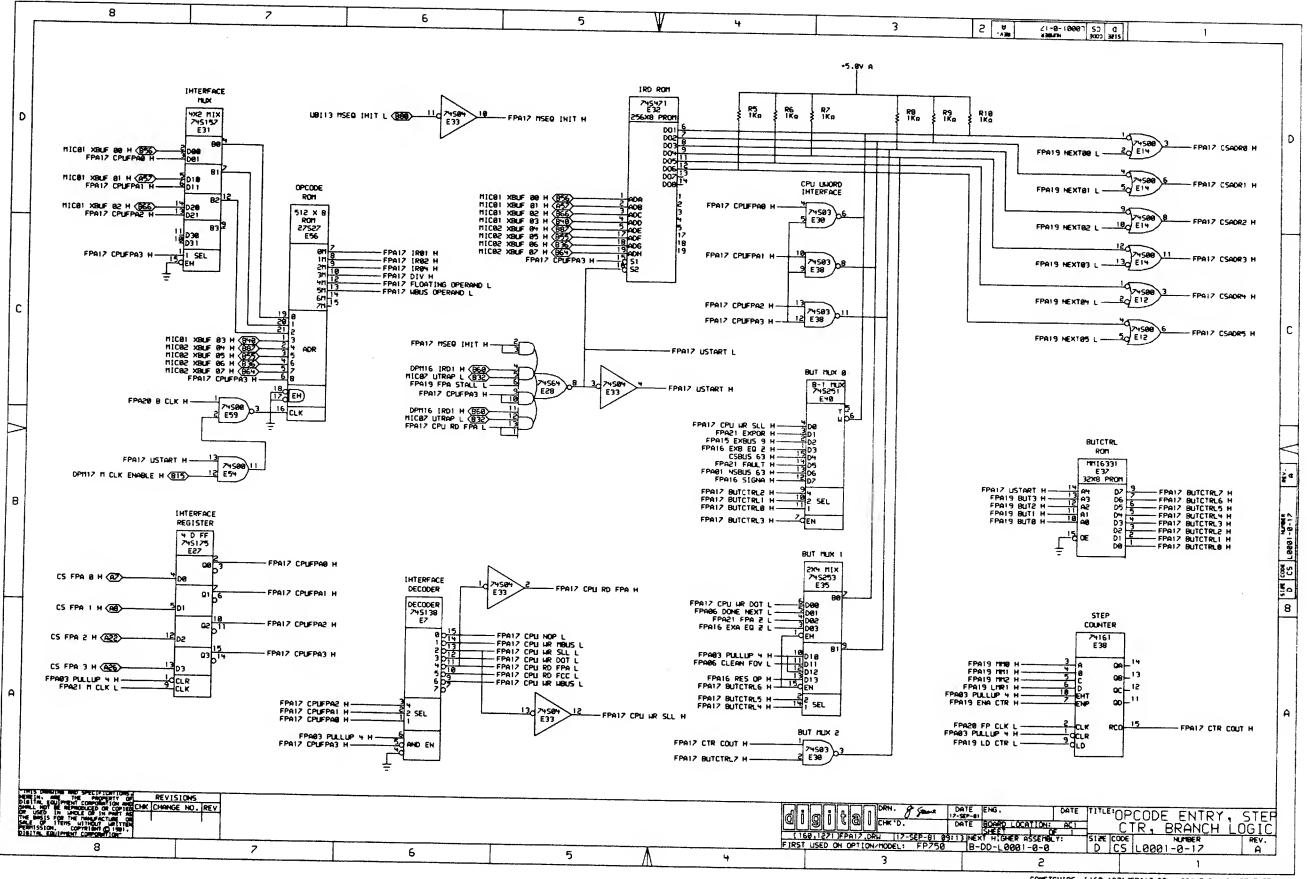


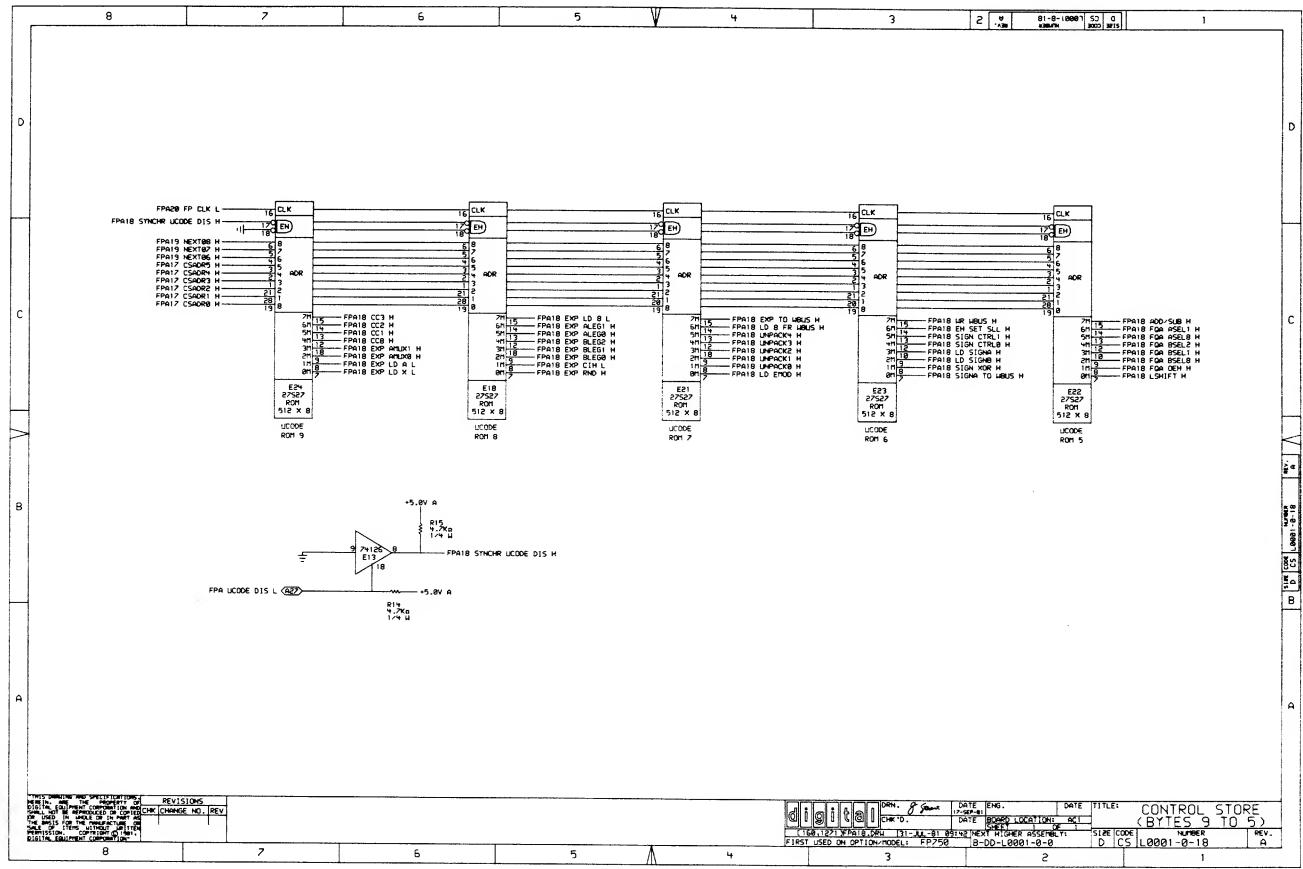


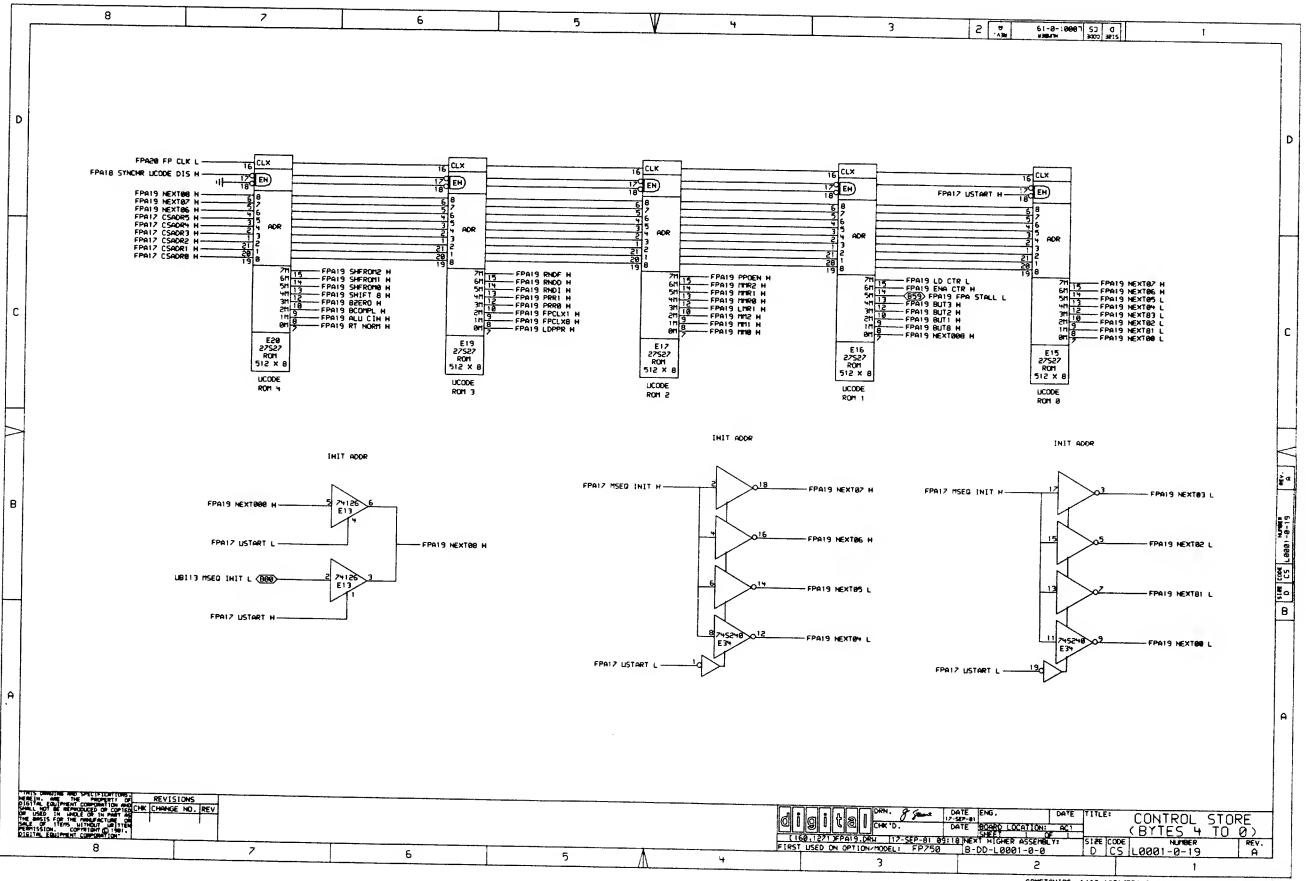


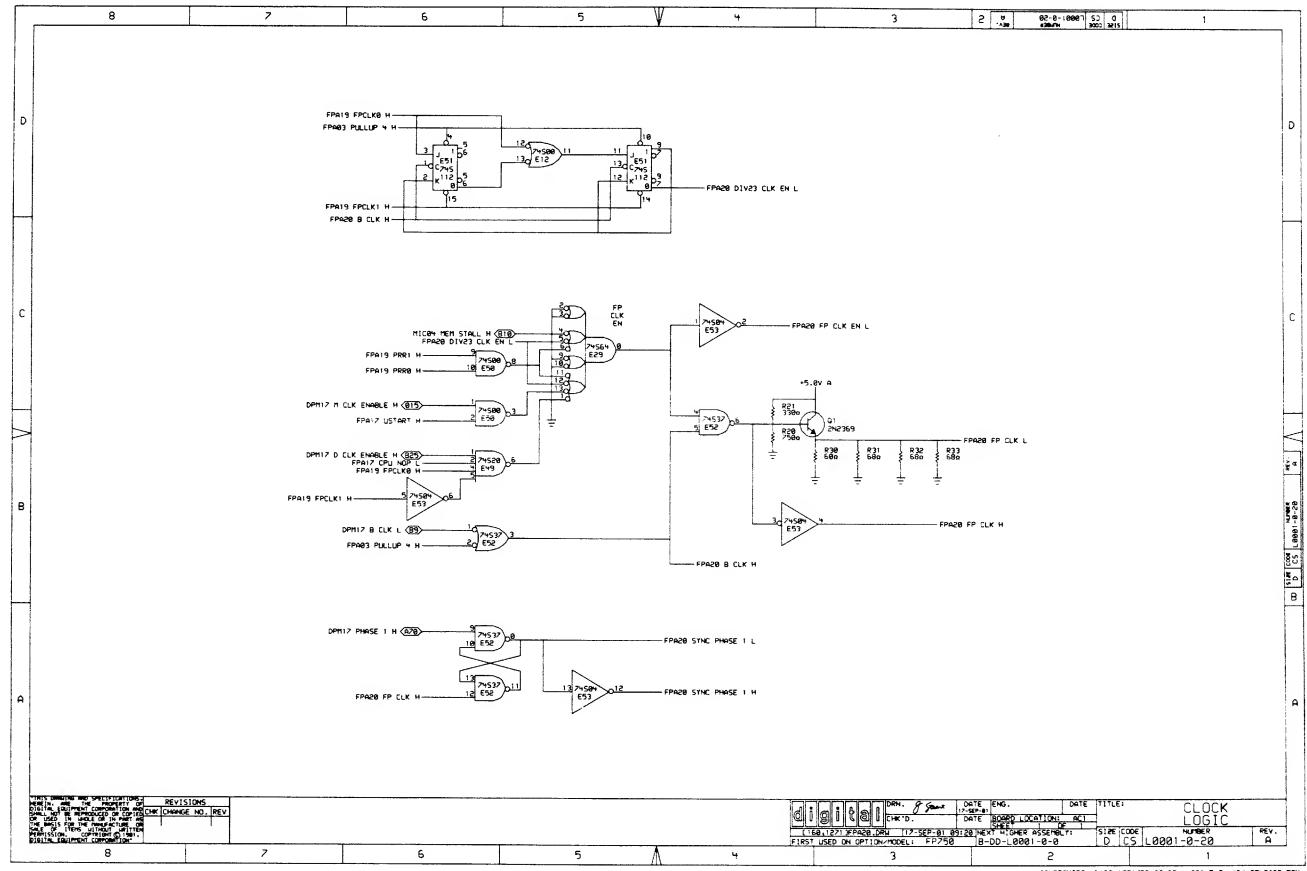


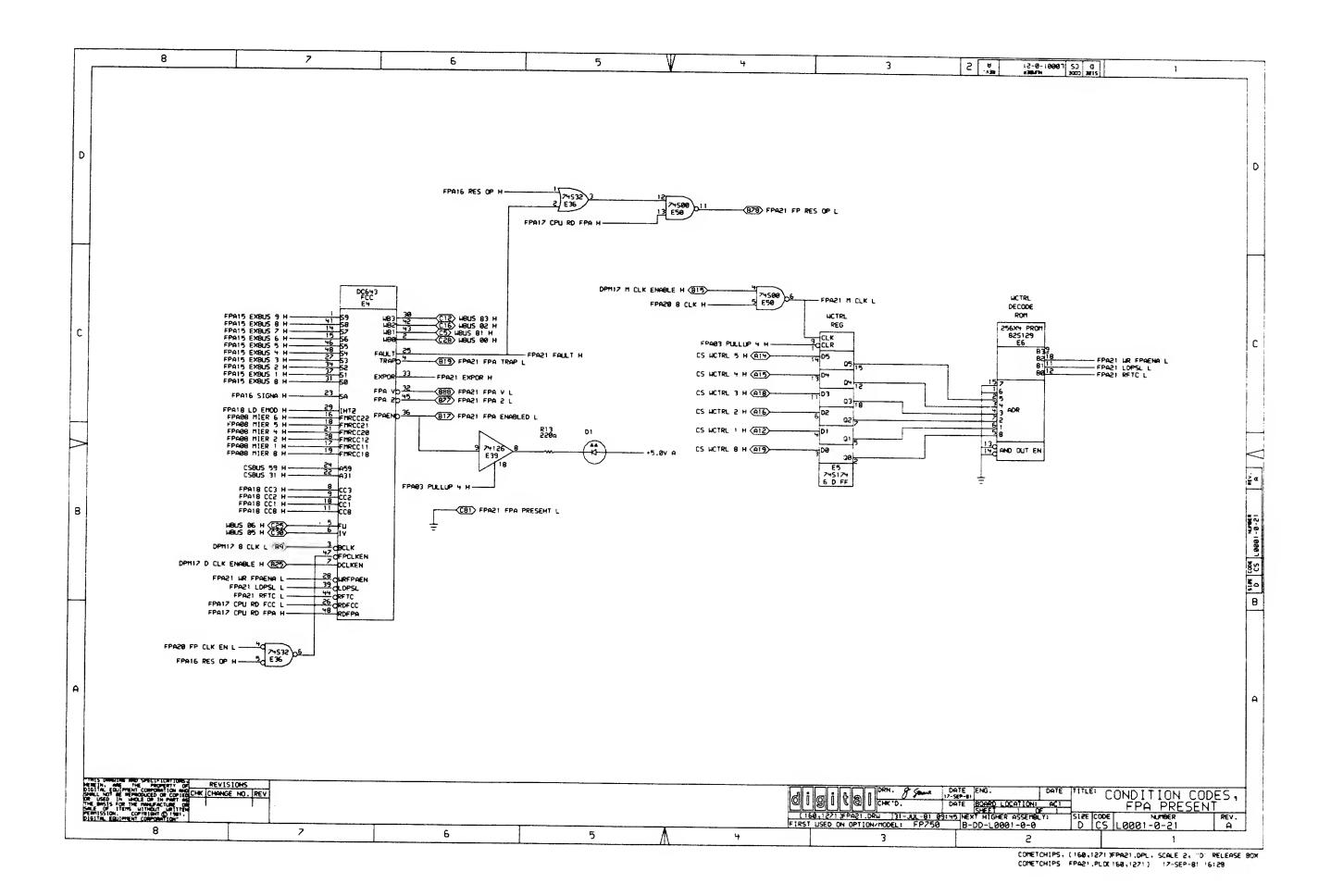


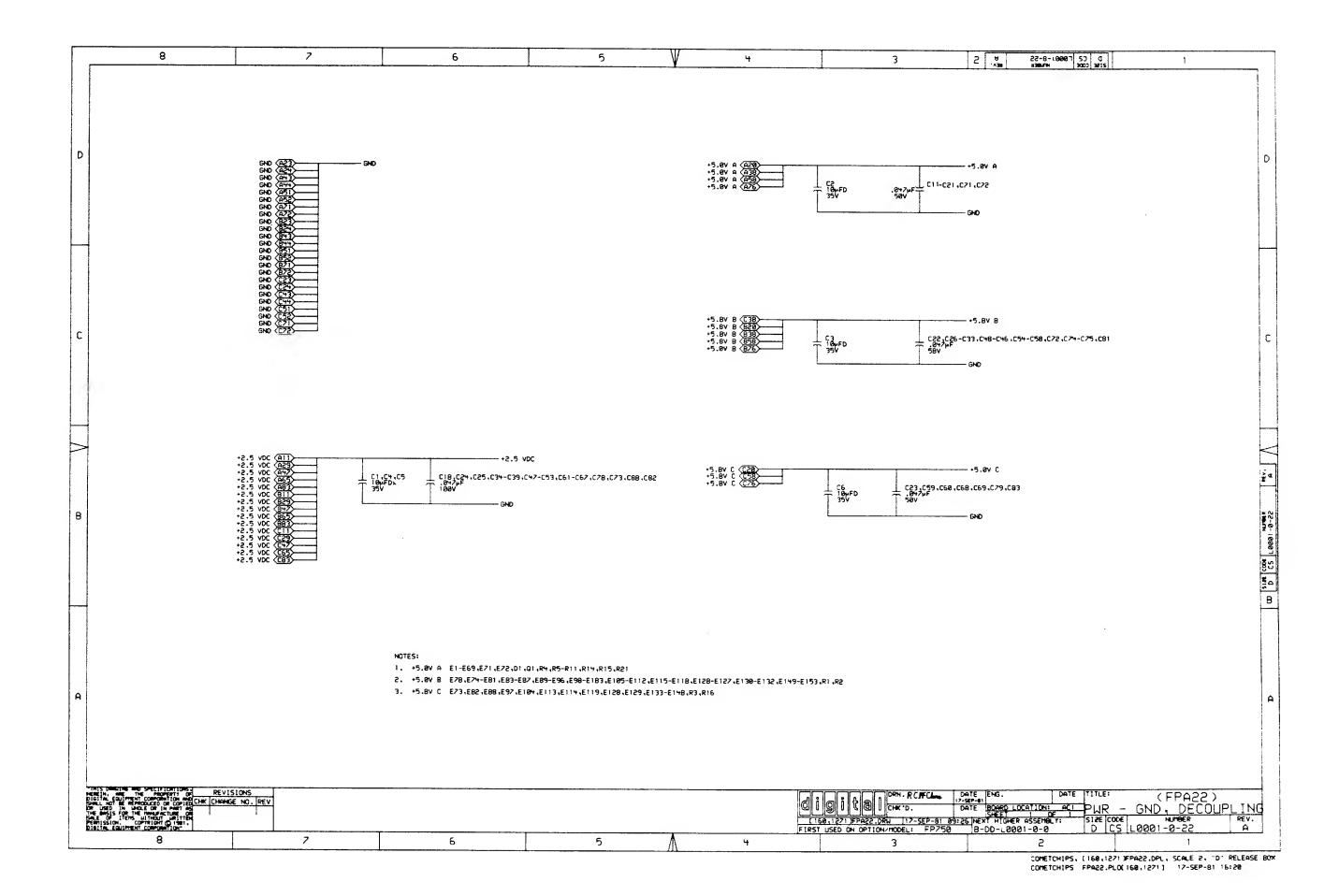












8 7 5 D C2 F0001-8-53 3 FPA18 SYNCHR UCODE DIS H 25 0 0 58 FPA17 CSADR4 H
FPA19 NEXT08 H 27 0 0 49 FPA17 CSADR3 H
FPA19 NEXT07 H 23 0 0 48 FPA17 CSADR2 H +5V 24 0 0 49 GND GND 23 0 0 48 GND FPA19 NEXTBO H 22 0 47 FPA17 CSAOR1 H
FPA17 CSAOR5 H 21 0 46 FPA17 CSAOR8 H GND 22 0 0 47 FPA28 FP CLK H FPAIZ USTART H 21 0 0 46 FPA UCODE DIS L FPA18 CC2 H 19 0 43 FPA18 UNPACKS H
FPA18 CC1 H 18 0 43 FPA18 UNPACKS H FPA19 SHFROM2 H 28 0 0 45 FPA19 LMR1 H FPA19 SHEROM1 H 19 0 0 44 FPA19 MM2 H FPA19 SHEROMB H 18 0 0 43 FPA19 MM H

FPA19 SHIFT B H 17 0 0 42 FPA19 MM H

FPA19 8ZERO H 16 0 0 41 FPA19 LD CTR L FPA18 CC8 H 17 a 42 FPA18 LD EMOD H FPAIS EXP ANUX H 16 0 341 FPAIS EXP ANUX H 15 0 48 FPAIS EXP ANUX H 15 0 39 FPAIS EN SET SLL H
FPAIS EXP LD A L 14 0 39 FPAIS SIGN CTRL H FPA19 8COMPL H 15 0 0 48 FPA19 ENA CTR H FPAIS ALU CIN H 14 0 0 39 FPAIS FPA STALL L FPA18 EXP LD X L 13 0 0 38 FPA18 SIGN CTRL8 H FPA19 RT HORM H 13 0 38 FPA19 BUT3 H FPA18 EXP LD 8 L 12 0 0 37 FPA18 LD SIGNA H FPA19 RNOF H 12 0 0-37 FPA19 BUTZ H FPA18 EXP ALEGI H 11 0 0 36 FPA18 LD SIGNS H FPA19 RNDD H 11 0 0 36 FPA19 BUT1 H FPA18 EXP ALEGS H 18 0 0 35 FPA18 SIGN XOR H FPA19 RNDI H 18 0 0 35 FPA19 BUTS H FPAIR EXP BLEGE H 9 0 0 34 FPAIR SIGNA TO HOUS H FPA19 PRR1 H 9 0 0 34 FPA19 NEXT008 H FPA18 EXP BLEGI H 8 0 0 33 FPA18 ADD-SUB H FPA19 PRR8 H 8 0 0 33 FPA19 NEXT87 H FPA18 EXP BLEG8 H 7 0 32 FPA18 FQA ASEL1 H
FPA18 EXP CIH L 6 0 31 FPA18 FQA ASEL8 H FPA18 EXP RND H 5 0 0 38 FPA18 FQA BSEL2 H CODE 18861-8-2 FPA18 EXP TO LIBUS H 4 0 0 29 FPA18 FQA BSEL2 H

FPA18 LD 8 FR LIBUS H 3 0 28 FPA18 FQA BSEL8 H

FPA18 LIMPACKY H 2 0 27 FPA18 FQA QEN H

FPA18 LIMPACK3 H 1 0 0 26 FPA18 LSHIFT H FPA19 MMR2 H 3 0 0 28 FPA19 NEXTOS L FPA19 MMR8 H 1 0 0 26 FPA19 NEXT 88 L | DATE | MICRO DIAG TEST CONNECTORS D CS L0001-0-23 7 6 4 3

Signal name	PAGE NUMBER(S)	SIGNAL NAME	PAGE NUMBER(S)			
88US 80 H	7,4,13	98US 50 H		SIGNAL NAME	PAGE NUMBER(S)	
BBUS 01 H	7,4,13	88US 51 H	6,5,13 6,5,13	CSBUS 26 H CSBUS 27 H	3,8,1 8,3,1	
88US 82 H 88US 83 H	7,4,13 7,4,13	88US 52 H 88US 53 H	6,5,13 6,5,13	C58US 28 H	8.3.1	
BBUS 84 H	7,4,13	88US 54 H	6.5.13	CSBUS 39 H CSBUS 38 H	3,8,1 8,3,1	
88US 85 H 88US 86 H	7,4,13 7,4,13	98US 55 H	6,5,13	CSBUS 31 H	21,8.3,1	
88us 87 H	7,4,13	88US 56 H 88US 57 H	6,5,13 6,5,13	CSBUS 32 H CSBUS 33 H	2.8.3 2.3.8	
BBUS 88 H BBUS 89 H	4,13,7	88US 50 H	6,5,13	CSBUS 34 H	5,3,8	
	4,13,7	88US 59 H	6.5.13	CSBUS 35 H	2.8.3	
BBUS 10 H BBUS 11 H	4.13.7 4.13.7	99us 60 H 98us 61 H	6,5,13 6,5,13	CSBUS 36 H	2,8,3	
BBUS 12 H	4,13,7	88US 62 H	6,5,13	CSBUS 37 H CSBUS 38 H	2·3·8 2·8·3	
88US 13 H 88US 14 H	4,13,7	BBUS 63 H	6,5,13	CSBUS 39 H	2.8.3	
BBUS 15 H	4,13,7 4,13,7	CS FPA B H CS FPA 1 H	17 17	CSBUS 40 H CSBUS 41 H	8,3,2	
98US 16 H	7,4,13	CS FPA 2 H	17	CSBUS 42 H	3.8.2 3.8.2	
88US 17 H 88US 18 H	7,4,13 7,4,13	CS FPA 3 H CS WCTRL B H	1 <i>7</i> 21	CSBUS 43 H	8.2.3	
88US 19 H	7,4,13	CS HCTRL 1 H	21	CSBUS 44 H CSBUS 45 H	3.8.5 8.3.5	
88US 28 H	2,4,13	CS HCTRL 2 H	21	CSBUS 46 H	8.3.2	
BBUS 21 H	7,4,13 7,4,13	CS HCTRL 3 H	21	CSBUS 47 H	8,3,2	
BBUS 23 H	7,4,13	CS WOTRL 4 H CS WOTRL 5 H	21 21	CSBUS 48 H CSBUS 49 H	8,3,1 3,8,1	
98US 24 H	7,4,13	CSBUS 00 H	2,8,3	CSBUS 58 H	3,8,1	
BBUS 25 H BBUS 26 H	7,4,13 7,4,13	CSBUS 81 H CSBUS 82 H	2,3,8 2,3,8	CS8US 51 H CS8US 52 H	8.3.1	
88US 27 H	7,4,13	C58US 03 H	2,8,3	CSBUS 53 H	8.3.1 3.8.1	
88US 28 H 88US 29 H	7,4,13 7,4,13	C58U5 84 H C58U5 85 H	2,8,3 2,3,8	CS8US 54 H CS8US 55 H	8,3,1	
88US 38 H	2,4,13	CSBUS 06 H	2,8,3		8.3.1	
98US 31 H	7,4,13	CSBUS 07 H	2.8.3	CS8us 56 H CS8us 52 H	14.8.3.1 14.3.8.1	
98US 32 H	13,5,6 13,5,6	CSBUS 88 H	8,3,2	C\$8U\$ 58 H	14.3.8.1	
BBUS 34 H	13,5,6	CSBUS 89 H CSBUS 10 H	3,8,2 3,8,2	CSBUS 59 H CSBUS 60 H	2: ,14,8,3,1 14,8,3,1	
88US 35 H 88US 36 H	13,5,6 13,5,6	CSBUS 11 H	8,2,3	CSBUS 61 H	14,3,8,1	
88US 37 H	13,5,6	CSBUS 12 H CSBUS 13 H	8,3,2 3,8,2	CSBUS 62 H CSBUS 63 H	14,8,3,1	
88US 38 H	13,5,6 13,5,6	CSBUS 14 H CSBUS 15 H	8,3,2	DPM16 IRD1 H	17,14,16,8,3,1	
BBUS 48 H	6,13,5		8,3,2	DPM17 B CLK L	21 .28	
BBUS 41 H	6.13.5	CSBUS 16 H CSBUS 17 H	B, 3, 1 3, B, 1	DPM17 D CLK ENGBLE H DPM17 M CLK ENGBLE H	21,29 29,21,17	
88US 42 H 88US 43 H	6,13,5 6,13,5	CSBUS 18 H	3,8,1	DPM17 PHASE 1 H	28	
BBUS 44 H	6,13,5	CSBUS 19 H CSBUS 20 H	B,3,1 B,3,1	FPA LICODE DIS L FPA LINCODE DIS L	18 B	
BBUS 45 H BBUS 46 H	6,13,5 6,13,5	CSBUS 21 H	3,8,1	FPA@1 LIT + MBUS @4 L	1	
88US 47 H	6,13,5	CSBUS 22 H CSBUS 23 H	8,3,1 8,3,1	FPAØ1 LIT + MBUS Ø5 L FPAØ1 LIT + MBUS Ø6 L	1	
88US 48 H 88US 49 H	6,5,13 6,5,13	CSBUS 24 H CSBUS 25 H	8,3,1 3,8,1	FPA01 NOP/LINPACKO H	1.2	
				FPARI NOP∕UNPACKI H	1,2	
	NOTES: 1. THIS PAGE LIST	IS THE SCHEMATIC PAGE NUMBER(S) WHERE A S	IGNAL NAME IS REFERENCED.			
	1. IRIS PAGE LISI	o the schematic Page Muniber(2) Waters a S	IONAL NAME IS REFERENCED.			
THE PROPERTY OF REVISIONS THE PROPERTY OF REVISIONS HITCOPPUBLISH ON HOO CHAK CHANGE NO. REV PROBLED IN HORT AS HE PROPERTY OF SHIPPUBLISH THE				DATE E	NG.   DATE  TITLE:	
PRODUCED OR COPTED CHK CHANGE NO. REV			i d	12 9 1 8 1 CHK TO. DATE 8	FORMA	RD REFE
			<u> </u>	1160 1331 150001 BD 1130 11 01 14 50 1501E	HIGHER ASSEMBLY: SIZE CODE	
COPTRIGHT () 1961 KIT COPPORATION			<u></u>	RST USED ON OPTION/MODEL: FP750 B-DI	D-L0001-0-0 D C5 L000	NUMBER 11-0-24

FPA81	31 NOP_UNPACK2 H 31 NOP_UNPACK3 H 31 NOP_UNPACK3 H 31 NOP_UNPACK3 H 31 NSBUS 16 H 31 NSBUS 17 H 31 NSBUS 17 H 31 NSBUS 18 H 31 NSBUS 27 H 31 NSBUS 28 H 31 NSBUS 38 H 31 NSBUS 58 H	1,2 1,2 1,2 9,4,1 9,4,1 9,4,1 9,4,1 9,4,1 9,4,1 9,4,1 9,4,1 9,4,1 9,4,1 9,4,1 9,4,1 10,5,1 10,5,1 110,5,1 110,5,1 110,5,1 110,5 1,10,5	FPA62 NSBUS 65 H FPA62 NSBUS 66 H FPA62 NSBUS 66 H FPA62 NSBUS 68 H FPA62 NSBUS 69 H FPA62 NSBUS 69 H FPA62 NSBUS 18 H FPA62 NSBUS 11 H FPA62 NSBUS 11 H FPA62 NSBUS 11 H FPA62 NSBUS 12 H FPA62 NSBUS 13 H FPA62 NSBUS 34 H FPA62 NSBUS 34 H FPA62 NSBUS 35 H FPA62 NSBUS 37 H FPA62 NSBUS 37 H FPA62 NSBUS 37 H FPA62 NSBUS 37 H FPA62 NSBUS 38 H FPA62 NSBUS 39 H FPA62 NSBUS 39 H FPA62 NSBUS 39 H FPA62 NSBUS 41 H FPA62 NSBUS 41 H FPA62 NSBUS 41 H FPA62 NSBUS 41 H FPA62 NSBUS 42 H FPA62 NSBUS 43 H FPA62 NSBUS 45 H FPA62 NSBUS 47 H	PAGE NUMBER(S)  2.4 2.4 2.4 2.4 2.4 3.4.2 3.4.2 3.4.2 3.4.2 3.4.2 3.4.2 3.4.2 3.4.2 3.4.2 3.4.2 3.4.2 3.4.2 3.4.2 3.4.2 3.4.2 5.2.18 5.2.2 5.18 5.2.3 5.18 5.2.3 5.18 5.2 5.18 5.2 5.18 5.2 5.18 5.2 5.18 5.2 5.18 5.2 5.18 5.2 5.18 5.2 5.18 5.2 5.18 5.2 5.18 5.2 5.18 5.2 5.18 5.2 5.18 5.2 5.18 5.2 5.18 5.2	SIGNAL NAME  FPA03 ABUS 23 M FPA03 ABUS 24 H FPA03 ABUS 25 H FPA03 ABUS 26 H FPA03 ABUS 26 H FPA03 ABUS 27 H FPA03 ABUS 28 M FPA03 ABUS 29 H FPA03 ABUS 29 H FPA03 ABUS 31 H FPA03 ABUS 32 H FPA03 ABUS 32 H FPA03 ABUS 32 H FPA03 ABUS 32 H FPA03 ABUS 37 H FPA03 ABUS 36 H FPA03 ABUS 37 H	3.7 3.7 3.7 3.7 3.7 3.7 3.7 3.7 3.7 3.7	
FPA61	11 NOPULIPACKY H 11 NSBUS 16 H 11 NSBUS 16 H 11 NSBUS 18 H 11 NSBUS 28 H 11 NSBUS 29 H 11 NSBUS 38 H 11 NSBUS 38 H 11 NSBUS 39 H	1,2 9,4,1 9,4,1 9,4,1 9,4,1 9,4,1 9,4,1 9,4,1 9,4,1 9,4,1 9,4,1 9,4,1 9,4,1 9,4,1 9,4,1 18,5,1 18,5,1 18,5,1 18,5,1 18,5,1 18,5 1,18,5	FPAB2 NSBUS 96 H FPAB2 NSBUS 97 H FPAB2 NSBUS 99 H FPAB2 NSBUS 99 H FPAB2 NSBUS 18 H FPAB2 NSBUS 18 H FPAB2 NSBUS 11 H FPAB2 NSBUS 12 H FPAB2 NSBUS 13 H FPAB2 NSBUS 14 H FPAB2 NSBUS 33 H FPAB2 NSBUS 33 H FPAB2 NSBUS 33 H FPAB2 NSBUS 34 H FPAB2 NSBUS 37 H FPAB2 NSBUS 37 H FPAB2 NSBUS 37 H FPAB2 NSBUS 37 H FPAB2 NSBUS 38 H FPAB2 NSBUS 38 H FPAB2 NSBUS 39 H FPAB2 NSBUS 39 H FPAB2 NSBUS 39 H FPAB2 NSBUS 48 H FPAB2 NSBUS 48 H FPAB2 NSBUS 48 H FPAB2 NSBUS 48 H FPAB2 NSBUS 47 H FPAB2 NSBUS 43 H FPAB2 NSBUS 43 H FPAB2 NSBUS 45 H FPAB2 NSBUS 47 H FPAB2 NSBUS 46 H FPAB2 NSBUS 47 H FPAB2 NSBUS 48 H	2.4 2.4 2.4 2.4 2.4 2.4 2.4 2.4 2.4 2.4	FPA63 ABUS 24 H FPA63 ABUS 25 H FPA63 ABUS 26 H FPA63 ABUS 26 H FPA63 ABUS 27 H FPA63 ABUS 28 H FPA63 ABUS 28 H FPA63 ABUS 38 H FPA63 ABUS 31 H FPA63 ABUS 32 H FPA63 ABUS 32 H FPA63 ABUS 37 H FPA63 ABUS 37 H FPA63 ABUS 37 H FPA63 ABUS 38 H FPA63 ABUS 38 H FPA63 ABUS 37 H FPA63 ABUS 38 H FPA63 ABUS 37 H FPA63 ABUS 38 H FPA63 ABUS 38 H FPA63 ABUS 38 H FPA63 ABUS 48 H FPA63 ABUS 48 H FPA63 ABUS 48 H FPA63 ABUS 48 H FPA63 ABUS 47 H	3.7 3.7 3.7 3.7 3.7 3.7 3.7 3.7 3.7 6.3,7 6.3,7 6.3 6.3 6.3 6.3 6.3 6.3 6.3 6.3 6.3 6.3	
FPA61	21 NSBUS 16 H 21 NSBUS 17 H 21 NSBUS 18 H 21 NSBUS 18 H 21 NSBUS 19 H 21 NSBUS 21 H 21 NSBUS 21 H 21 NSBUS 22 H 21 NSBUS 23 H 21 NSBUS 23 H 21 NSBUS 25 H 21 NSBUS 25 H 21 NSBUS 25 H 21 NSBUS 26 H 21 NSBUS 27 H 21 NSBUS 27 H 21 NSBUS 28 H 21 NSBUS 28 H 21 NSBUS 29 H 21 NSBUS 29 H 21 NSBUS 29 H 21 NSBUS 29 H 21 NSBUS 38 H 21 NSBUS 39 H 21 NSBUS 30 H 21	9,4,1 9,4,1 9,4,1 9,4,1 9,4,1 9,4,1 9,4,1 9,4,1 9,4,1 9,4,1 9,4,1 9,4,1 9,4,1 18,5,1 18,5,1 18,5,1 1,18,5 1,18,5	FPAB2 NSBUS 88 H FPAB2 NSBUS 99 H FPAB2 NSBUS 18 H FPAB2 NSBUS 11 H FPAB2 NSBUS 13 H FPAB2 NSBUS 13 H FPAB2 NSBUS 14 H FPAB2 NSBUS 14 H FPAB2 NSBUS 32 H FPAB2 NSBUS 35 H FPAB2 NSBUS 35 H FPAB2 NSBUS 36 H FPAB2 NSBUS 37 H FPAB2 NSBUS 36 H FPAB2 NSBUS 37 H FPAB2 NSBUS 37 H FPAB2 NSBUS 38 H FPAB2 NSBUS 37 H FPAB2 NSBUS 38 H FPAB2 NSBUS 37 H FPAB2 NSBUS 38 H FPAB2 NSBUS 47 H FPAB2 NSBUS 41 H FPAB2 NSBUS 43 H FPAB2 NSBUS 43 H FPAB2 NSBUS 45 H FPAB2 NSBUS 45 H FPAB2 NSBUS 47 H FPAB2 NSBUS 47 H FPAB2 NSBUS 46 H FPAB2 NSBUS 46 H FPAB2 NSBUS 47 H FPAB2 NSBUS 46 H FPAB2 NSBUS 47 H FPAB2 NSBUS 47 H FPAB2 NSBUS 48 H	9,4,2 9,4,2 9,4,2 9,4,2 9,4,2 9,4,2 9,4,2 5,2,10 5,2,10 5,2,10 5,2,10 2,5 2,5 2,5 2,5 2,5 2,5 2,5 2,5	FPA03 ABUS 25 H FPA03 ABUS 26 H FPA03 ABUS 27 H FPA03 ABUS 28 H FPA03 ABUS 29 H FPA03 ABUS 29 H FPA03 ABUS 30 H FPA03 ABUS 31 H FPA03 ABUS 31 H FPA03 ABUS 32 H FPA03 ABUS 34 H FPA03 ABUS 37 H FPA03 ABUS 37 H FPA03 ABUS 37 H FPA03 ABUS 38 H FPA03 ABUS 39 H FPA03 ABUS 39 H FPA03 ABUS 48 H FPA03 ABUS 47 H	3.7 3.7 3.7 3.7 3.7 3.7 3.7 6.3.7 6.3.7 6.3.7 6.3 6.3 6.3 6.3 6.3 6.3 6.3 6.3 6.3 6.3	
FPA61	91 NSBUS 17 H 101 NSBUS 19 H 101 NSBUS 19 H 101 NSBUS 20 H 101 NSBUS 21 H 101 NSBUS 22 H 101 NSBUS 23 H 101 NSBUS 24 H 101 NSBUS 25 H 101 NSBUS 26 H 101 NSBUS 27 H 101 NSBUS 28 H 101 NSBUS 29 H 101 NSBUS 29 H 101 NSBUS 30 H 101 NSBUS 50 H	9.4.1 9.4.1 9.4.1 9.4.1 9.4.1 9.4.1 9.4.1 9.4.1 9.4.1 9.4.1 9.4.1 9.4.1 9.4.1 9.4.1 10.5.1 10.5.1 10.5.1 1.10.5 1.10.5 1.10.5 1.10.5	FPAB2 NSBUS 99 H FPAB2 NSBUS 18 H FPAB2 NSBUS 11 H FPAB2 NSBUS 12 H FPAB2 NSBUS 13 H FPAB2 NSBUS 14 H FPAB2 NSBUS 15 H FPAB2 NSBUS 35 H FPAB2 NSBUS 33 H FPAB2 NSBUS 33 H FPAB2 NSBUS 34 H FPAB2 NSBUS 37 H FPAB2 NSBUS 38 H FPAB2 NSBUS 37 H FPAB2 NSBUS 48 H FPAB2 NSBUS 48 H FPAB2 NSBUS 48 H FPAB2 NSBUS 48 H FPAB2 NSBUS 47 H FPAB2 NSBUS 47 H FPAB2 NSBUS 48 H FPAB2 NSBUS 47 H FPAB2 NSBUS 46 H FPAB2 NSBUS 46 H FPAB2 NSBUS 47 H FPAB2 NSBUS 47 H FPAB2 NSBUS 47 H FPAB2 NSBUS 47 H FPAB2 NSBUS 46 H FPAB2 NSBUS 47 H FPAB2 NSBUS 48 H	9,4,2 9,4,2 9,4,2 9,4,2 9,4,2 9,4,2 9,4,2 5,2,18 5,2,18 5,2,18 5,5,18 2,	FPA63 ABUS 27 H FPA63 ABUS 28 H FPA63 ABUS 29 H FPA63 ABUS 38 H FPA63 ABUS 31 H FPA63 ABUS 32 H FPA63 ABUS 32 H FPA63 ABUS 33 H FPA63 ABUS 34 H FPA63 ABUS 35 H FPA63 ABUS 36 H FPA63 ABUS 37 H FPA63 ABUS 37 H FPA63 ABUS 38 H FPA63 ABUS 38 H FPA63 ABUS 48 H FPA63 ABUS 47 H	3.7 3.7 3.7 3.7 3.7 6.3,7 6.3 6.3 6.3 6.3 6.3 6.3 6.3 6.3 6.3 6.3	
F-PAG1 F-	11 NSBUS 19 H 11 NSBUS 20 H 11 NSBUS 21 H 11 NSBUS 22 H 11 NSBUS 23 H 11 NSBUS 23 H 11 NSBUS 25 H 11 NSBUS 26 H 11 NSBUS 26 H 11 NSBUS 26 H 11 NSBUS 26 H 11 NSBUS 28 H 11 NSBUS 29 H 11 NSBUS 29 H 11 NSBUS 39 H 11 NSBUS 59 H 11 NSBUS 59 H 11 NSBUS 50 H 11 NSBUS 50 H 11 NSBUS 51 H 11 NSBUS 55 H 11 NSBUS 55 H 11 NSBUS 55 H 11 NSBUS 55 H 11 NSBUS 56 H 11 NSBUS 56 H 11 NSBUS 56 H	9.4.1 9.4.1 9.4.1 9.4.1 9.4.1 9.4.1 9.4.1 9.4.1 9.4.1 9.4.1 9.4.1 9.4.1 9.4.1 9.4.1 18.5.1 18.5.1 18.5.1 18.5.1 18.5.1 18.5.1 18.5.1 18.5.1 18.5.1 18.5.1 18.5.1 18.5.1 18.5.1 18.5.1 18.5.1	FPAB2 NSBUS 18 H FPAB2 NSBUS 11 H FPAB2 NSBUS 11 H FPAB2 NSBUS 13 H FPAB2 NSBUS 14 H FPAB2 NSBUS 14 H FPAB2 NSBUS 32 H FPAB2 NSBUS 33 H FPAB2 NSBUS 33 H FPAB2 NSBUS 35 H FPAB2 NSBUS 35 H FPAB2 NSBUS 36 H FPAB2 NSBUS 37 H FPAB2 NSBUS 37 H FPAB2 NSBUS 38 H FPAB2 NSBUS 38 H FPAB2 NSBUS 38 H FPAB2 NSBUS 39 H FPAB2 NSBUS 39 H FPAB2 NSBUS 41 H FPAB2 NSBUS 41 H FPAB2 NSBUS 42 H FPAB2 NSBUS 43 H FPAB2 NSBUS 45 H FPAB2 NSBUS 45 H FPAB2 NSBUS 47 H FPAB2 NSBUS 46 H FPAB2 NSBUS 46 H FPAB2 NSBUS 47 H FPAB2 NSBUS 47 H FPAB2 NSBUS 46 H FPAB2 NSBUS 47 H FPAB2 NSBUS 46 H	9,4,2 9,4,2 9,4,2 9,4,2 9,4,2 9,4,2 5,2,18 5,2,18 5,2,18 5,2,18 2,5,18 2	FPA63 ABUS 28 H FPA63 ABUS 29 H FPA63 ABUS 38 H FPA63 ABUS 31 H FPA63 ABUS 31 H FPA63 ABUS 32 H FPA63 ABUS 33 H FPA63 ABUS 35 H FPA63 ABUS 35 H FPA63 ABUS 36 H FPA63 ABUS 37 H FPA63 ABUS 38 H FPA63 ABUS 39 H FPA63 ABUS 48 H FPA63 ABUS 47 H	3.7 3.7 3.7 3.7 6.3.7 6.3.7 6.3 6.3 6.3 6.3 6.3 6.3 6.3 6.3 6.3 6.3	
FPA61	11 NSBUS 20 H 11 NSBUS 21 H 11 NSBUS 22 H 11 NSBUS 23 H 11 NSBUS 24 H 11 NSBUS 24 H 11 NSBUS 25 H 11 NSBUS 26 H 11 NSBUS 27 H 11 NSBUS 27 H 11 NSBUS 28 H 11 NSBUS 29 H 11 NSBUS 30 H 11 NSBUS 30 H 11 NSBUS 30 H 11 NSBUS 30 H 11 NSBUS 31 H 11 NSBUS 35 H 11 NSBUS 55 H 11 NSBUS 56 H 11 NSBUS 56 H 11 NSBUS 56 H	9.4.1 9.4.1 9.4.1 9.4.1 9.4.1 9.4.1 9.4.1 9.4.1 9.4.1 9.4.1 10.5.1 10.5.1 10.5.1 110.5.1 110.5.1 110.5.1 110.5.1 110.5.1 110.5.1 110.5.1 110.5.1	FPAB2 NSBUS 12 H FPAB2 NSBUS 13 H FPAB2 NSBUS 13 H FPAB2 NSBUS 14 H FPAB2 NSBUS 15 H FPAB2 NSBUS 32 H FPAB2 NSBUS 33 H FPAB2 NSBUS 34 H FPAB2 NSBUS 35 H FPAB2 NSBUS 36 H FPAB2 NSBUS 37 H FPAB2 NSBUS 38 H FPAB2 NSBUS 39 H FPAB2 NSBUS 48 H FPAB2 NSBUS 41 H FPAB2 NSBUS 41 H FPAB2 NSBUS 43 H FPAB2 NSBUS 43 H FPAB2 NSBUS 45 H FPAB2 NSBUS 45 H FPAB2 NSBUS 45 H FPAB2 NSBUS 46 H FPAB2 NSBUS 47 H FPAB2 NSBUS 48 H	9,4,2 9,4,2 9,4,2 9,4,2 9,4,2 5,2,18 5,2,18 5,2,18 2,5,18	FPA83 ABUS 29 H FPA83 ABUS 38 H FPA83 ABUS 31 H FPA83 ABUS 32 H  FPA83 ABUS 32 H  FPA83 ABUS 33 H FPA83 ABUS 34 H FPA83 ABUS 35 H FPA83 ABUS 37 H FPA83 ABUS 38 H FPA83 ABUS 48 H FPA83 ABUS 48 H FPA83 ABUS 48 H FPA83 ABUS 41 H FPA83 ABUS 42 H  FPA83 ABUS 45 H FPA83 ABUS 47 H	3,7 3,7 3,7 6,3,7 6,3,7 6,3 6,3 6,3 6,3 6,3 6,3 6,3 6,3 6,3 6,3	
FPA61	11 NSBUS 21 H 11 NSBUS 22 H 11 NSBUS 23 H 11 NSBUS 24 H 11 NSBUS 25 H 11 NSBUS 26 H 11 NSBUS 26 H 11 NSBUS 27 H 11 NSBUS 28 H 11 NSBUS 29 H 11 NSBUS 29 H 11 NSBUS 38 H 11 NSBUS 37 H 11 NSBUS 58 H 11 NSBUS 56 H 11 NSBUS 57 H	9.4.1 9.4.1 9.4.1 9.4.1 9.4.1 9.4.1 9.4.1 9.4.1 9.4.1 9.4.1 9.4.1 18.5.1 18.5.1 18.5.1 1.18.5 1.18.5 1.18.5 1.18.5 1.18.5	FPAGE NSBUS 13 H FPAGE NSBUS 14 H  FPAGE NSBUS 15 H FPAGE NSBUS 32 H FPAGE NSBUS 33 H FPAGE NSBUS 33 H FPAGE NSBUS 35 H FPAGE NSBUS 36 H FPAGE NSBUS 37 H FPAGE NSBUS 37 H FPAGE NSBUS 37 H FPAGE NSBUS 38 H FPAGE NSBUS 39 H FPAGE NSBUS 48 H FPAGE NSBUS 48 H FPAGE NSBUS 41 H FPAGE NSBUS 41 H FPAGE NSBUS 42 H FPAGE NSBUS 43 H FPAGE NSBUS 45 H FPAGE NSBUS 47 H FPAGE NSBUS 46 H FPAGE NSBUS 46 H FPAGE NSBUS 47 H	9,4,2 9,4,2 9,4,2 5,2,18 5,2,18 5,2,18 2,5,18 2,5,18 2,5,18 2,5,18 5,18,2 5,18,2 5,18,2 5,18,2 5,18,2 5,18,2 5,18,2	FPA63 ABUS 31 H FPA63 ABUS 32 H FPA63 ABUS 33 H FPA63 ABUS 34 H FPA63 ABUS 35 H FPA63 ABUS 35 H FPA63 ABUS 37 H FPA63 ABUS 38 H FPA63 ABUS 38 H FPA63 ABUS 39 H FPA63 ABUS 48 H FPA63 ABUS 48 H FPA63 ABUS 48 H FPA63 ABUS 47 H	3.7 6.3.7 3.6.7 6.3.7 6.3 6.3 6.3 6.3 6.3 6.3 6.3 6.3 6.3	
FPA81	11 NSBUS 23 H 11 NSBUS 24 H 11 NSBUS 25 H 11 NSBUS 25 H 11 NSBUS 27 H 11 NSBUS 27 H 11 NSBUS 28 H 11 NSBUS 29 H 11 NSBUS 38 H 11 NSBUS 38 H 11 NSBUS 38 H 11 NSBUS 38 H 11 NSBUS 58 H 11 NSBUS 59 H 11 NSBUS 59 H 11 NSBUS 55 H	9,4,1  9,4,1  9,4,1  9,4,1  9,4,1  9,4,1  9,4,1  9,4,1  10,5,1  10,5,1  1,10,5  1,10,5  1,10,5  1,10,5  1,10,5	FPAB2 NSBUS 14 H  FPAB2 NSBUS 15 H  FPAB2 NSBUS 32 H  FPAB2 NSBUS 33 H  FPAB2 NSBUS 34 H  FPAB2 NSBUS 35 H  FPAB2 NSBUS 36 H  FPAB2 NSBUS 37 H  FPAB2 NSBUS 48 H  FPAB2 NSBUS 48 H  FPAB2 NSBUS 41 H  FPAB2 NSBUS 42 H  FPAB2 NSBUS 43 H  FPAB2 NSBUS 43 H  FPAB2 NSBUS 45 H  FPAB2 NSBUS 45 H  FPAB2 NSBUS 46 H  FPAB2 NSBUS 47 H  FPAB2 NSBUS 47 H  FPAB2 NSBUS 47 H  FPAB2 NSBUS 48 H	9.4.2 9.4.2 5.2.18 5.2.18 5.2.18 2.5.18 2.5.18 2.5.18 2.5.18 2.5.18 2.5.18 2.5.18 2.5.18 2.5.18 2.5.18 2.5.18 2.5.18 2.5.18 2.5.18 2.5.18 2.5.18	FPA63 ABUS 32 H  FPA63 ABUS 33 H  FPA63 ABUS 34 H  FPA63 ABUS 35 H  FPA63 ABUS 35 H  FPA63 ABUS 37 H  FPA63 ABUS 37 H  FPA63 ABUS 39 H	6.3.7 3.6.7 6.3 6.3 6.3 6.3 6.3 6.3 6.3 6.3 6.3 6.3	
FPA61	II ASBUS 24 H II ASBUS 25 H II ASBUS 25 H II ASBUS 26 H II ASBUS 28 H II ASBUS 29 H II ASBUS 29 H II ASBUS 39 M II ASBUS 39 H II ASBUS 59 H II ASBUS 50 H II ASBUS 51 H II ASBUS 51 H II ASBUS 55 H II ASBUS 55 H II ASBUS 56 H II ASBUS 57 H	9.4.1 9.4.1 9.4.1 9.4.1 9.4.1 9.4.1 18.5.1 18.5.1 18.5.1 1.18.5 1.18.5 1.18.5 1.18.5	FPA82 NSBUS 32 H FPA82 NSBUS 33 H FPA82 NSBUS 33 H FPA82 NSBUS 35 H FPA82 NSBUS 35 H FPA82 NSBUS 36 H FPA82 HSBUS 37 H FPA82 HSBUS 39 H FPA82 NSBUS 40 H  FPA82 NSBUS 41 H FPA82 NSBUS 42 H FPA82 NSBUS 42 H FPA82 NSBUS 42 H FPA82 NSBUS 43 H FPA82 NSBUS 44 H FPA82 NSBUS 45 H FPA82 NSBUS 47 H FPA82 NSBUS 46 H FPA82 NSBUS 47 H FPA82 NSBUS 47 H FPA82 NSBUS 47 H FPA82 NSBUS 47 H FPA82 NSBUS 48 H	5.2.18 5.2.18 5.2.18 5.2.18 2.5.18 2.5.18 2.5.18 2.5.18 5.18.2 5.18.2 5.18.2 5.18.2 5.18.2 5.18.2 5.18.2	FPA03 ABUS 33 H FPA03 ABUS 34 H FPA03 ABUS 35 H FPA03 ABUS 36 H FPA03 ABUS 37 H FPA03 ABUS 37 H FPA03 ABUS 39 H FPA03 ABUS 39 H FPA03 ABUS 40 H FPA03 ABUS 40 H FPA03 ABUS 41 H FPA03 ABUS 42 H  FPA03 ABUS 45 H FPA03 ABUS 47 H	3.6.7 6.3.7 6.3 6.3 6.3 6.3 6.3 6.3 6.3 6.3 6.3 6.3	
FPA61	II ASBUS 24 H II ASBUS 25 H II ASBUS 25 H II ASBUS 26 H II ASBUS 28 H II ASBUS 29 H II ASBUS 29 H II ASBUS 39 M II ASBUS 39 H II ASBUS 59 H II ASBUS 50 H II ASBUS 51 H II ASBUS 51 H II ASBUS 52 H II ASBUS 53 H II ASBUS 55 H II ASBUS 56 H II ASBUS 56 H II ASBUS 56 H II ASBUS 56 H II ASBUS 57 H	9.4.1 9.4.1 9.4.1 9.4.1 9.4.1 9.4.1 18.5.1 18.5.1 18.5.1 1.18.5 1.18.5 1.18.5 1.18.5	FPA82 NSBUS 32 H FPA82 NSBUS 33 H FPA82 NSBUS 33 H FPA82 NSBUS 35 H FPA82 NSBUS 35 H FPA82 NSBUS 36 H FPA82 HSBUS 37 H FPA82 HSBUS 39 H FPA82 NSBUS 40 H  FPA82 NSBUS 41 H FPA82 NSBUS 42 H FPA82 NSBUS 42 H FPA82 NSBUS 42 H FPA82 NSBUS 43 H FPA82 NSBUS 44 H FPA82 NSBUS 45 H FPA82 NSBUS 47 H FPA82 NSBUS 46 H FPA82 NSBUS 47 H FPA82 NSBUS 47 H FPA82 NSBUS 47 H FPA82 NSBUS 47 H FPA82 NSBUS 48 H	5.2.18 5.2.18 5.2.18 5.2.18 2.5.18 2.5.18 2.5.18 2.5.18 5.18.2 5.18.2 5.18.2 5.18.2 5.18.2 5.18.2 5.18.2	FPA83 ABUS 34 H FPA83 ABUS 35 H FPA83 ABUS 36 H FPA83 ABUS 37 H FPA83 ABUS 37 H FPA83 ABUS 38 H FPA83 ABUS 38 H FPA83 ABUS 48 H FPA83 ABUS 48 H FPA83 ABUS 41 H FPA83 ABUS 42 H FPA83 ABUS 45 H	6.3,7 6.3 3.6 6.3 6.3 6.3 6.3 6.3 6.3 6.3 6.3	
FPA81	II NSBUS 26 H II NSBUS 27 H II NSBUS 28 H II NSBUS 29 H II NSBUS 30 H II NSBUS 31 H II NSBUS 31 H II NSBUS 48 H II NSBUS 50 H II NSBUS 50 H II HSBUS 51 H II HSBUS 52 H II HSBUS 53 H II HSBUS 55 H II NSBUS 55 H	9.4.1 9.4.1 9.4.1 9.4.1 9.4.1 18.5.1 18.5.1 18.5.1 18.5.1 1.18.5 1.18.5 1.18.5 1.18.5	FPAB2 NSBUS 33 H FPAB2 NSBUS 34 H FPAB2 NSBUS 35 H FPAB2 NSBUS 36 H FPAB2 NSBUS 36 H FPAB2 HSBUS 37 H FPAB2 HSBUS 39 H FPAB2 HSBUS 49 H FPAB2 NSBUS 41 H FPAB2 NSBUS 42 H FPAB2 NSBUS 43 H FPAB2 NSBUS 43 H FPAB2 NSBUS 44 H FPAB2 NSBUS 45 H FPAB2 NSBUS 46 H FPAB2 NSBUS 47 H FPAB2 NSBUS 47 H FPAB2 NSBUS 47 H FPAB2 NSBUS 47 H	5.2.18 5.2.18 5.2.18 2.5.10 2.5.18 2.5.18 5.10.2 5.18.2 5.18.2 5.18.2 5.18.2 5.18.2 5.18.2	FPA63 ABUS 35 H FPA63 ABUS 36 H FPA63 ABUS 37 H FPA63 ABUS 37 H FPA63 ABUS 38 H FPA63 ABUS 39 H FPA63 ABUS 48 H FPA63 ABUS 41 H FPA63 ABUS 42 H FPA63 ABUS 45 H FPA63 ABUS 45 H	6,3 6,3 6,3 6,3 6,3 6,3 6,3 6,3 6,3 6,3	
FPA61	11 NSBUS 27 H 11 NSBUS 28 H 11 NSBUS 29 H 11 NSBUS 38 H 11 NSBUS 38 H 11 NSBUS 48 H 11 NSBUS 49 H 11 NSBUS 59 H 11 NSBUS 59 H 11 HSBUS 51 H 11 HSBUS 52 H 11 HSBUS 53 H 11 NSBUS 54 H 11 NSBUS 55 H 11 NSBUS 55 H 11 NSBUS 56 H	9.4.1 9.4.1 9.4.1 9.4.1 18.5.1 18.5.1 18.5.1 1.18.5 1.18.5 1.18.5 1.18.5 1.18.5	FPA82 NSBUS 35 H FPA82 NSBUS 36 H FPA82 HSBUS 37 H FPA82 HSBUS 38 H FPA82 HSBUS 39 H FPA82 NSBUS 40 H  FPA82 NSBUS 41 H FPA82 NSBUS 42 H FPA82 NSBUS 43 H FPA82 NSBUS 45 H FPA82 NSBUS 46 H FPA82 NSBUS 46 H	5.2.18 2.5.18 2.5.18 2.5.18 2.5.18 5.18.2 5.18.2 5.18.2 5.18.2 5.18.2 5.18.2	FPA63 ABUS 36 H FPA63 ABUS 37 H FPA63 ABUS 38 H FPA63 ABUS 39 H FPA63 ABUS 49 H FPA63 ABUS 41 H FPA63 ABUS 42 H FPA63 ABUS 42 H FPA63 ABUS 45 H FPA63 ABUS 54 H FPA63 ABUS 54 H FPA63 ABUS 54 H FPA63 ABUS 54 H FPA63 ABUS 55 H	6.3 6.3 6.3 6.3 6.3 6.3 6.3 6.3 6.3 6.3	
F PAG1	1 NSBUS 28 H 1 NSBUS 29 H 1 NSBUS 39 H 1 NSBUS 38 H 1 NSBUS 31 H 1 NSBUS 49 H 1 NSBUS 49 H 1 NSBUS 50 H 1 NSBUS 51 H 1 HSBUS 52 H 1 HSBUS 53 H 1 NSBUS 53 H 1 NSBUS 54 H 1 NSBUS 55 H 1 NSBUS 55 H 1 NSBUS 56 H 1 NSBUS 56 H	9,4,1 9,4,1 9,4,1 9,4,1 10,5,1 10,5,1 10,5,1 1,10,5 1,10,5 1,10,5 1,10,5 1,10,5	FPA82 NSBUS 36 H FPA82 HSBUS 37 H FPA82 HSBUS 37 H FPA82 HSBUS 39 H FPA82 NSBUS 40 H  FPA82 NSBUS 41 H FPA82 NSBUS 42 H FPA82 NSBUS 43 H FPA82 NSBUS 43 H FPA82 NSBUS 45 H FPA82 NSBUS 47 H FPA82 NSBUS 47 H FPA82 NSBUS 47 H FPA82 NSBUS 46 H FPA82 NSBUS 47 H FPA82 NSBUS 47 H FPA82 NSBUS 47 H	2.5.18 2.5.18 2.5.18 5.10.2 5.18.2 5.18.2 5.18.2 5.18.2 5.18.2 5.18.2 5.18.2	FPA83 ABUS 38 M FPA83 ABUS 39 M FPA83 ABUS 48 M FPA83 ABUS 41 M FPA83 ABUS 42 M FPA83 ABUS 42 M FPA83 ABUS 45 M FPA83 ABUS 45 M FPA83 ABUS 47 M FPA83 ABUS 47 M FPA83 ABUS 47 M	6.3 6.3 6.3 6.3 6.3 6.3 6.3 6.3 6.3	
FPAB1	1 NSBUS 29 H 1 NSBUS 30 M 1 NSBUS 31 H 1 NSBUS 48 H 1 NSBUS 49 H 1 NSBUS 50 H 1 HSBUS 51 H 1 HSBUS 52 H 1 HSBUS 53 H 1 NSBUS 55 H 1 NSBUS 55 H 1 NSBUS 56 H 1 NSBUS 56 H	9,4,1 9,4,1 9,4,1 10,5,1 18,5,1 10,5,1 1,10,5 1,10,5 1,10,5 1,10,5 1,10,5	FPAB2 HSBUS 37 H FPAB2 HSBUS 38 H FPAB2 HSBUS 39 H FPAB2 HSBUS 39 H FPAB2 NSBUS 40 H  FPAB2 NSBUS 41 H FPAB2 NSBUS 42 H FPAB2 HSBUS 43 H FPAB2 HSBUS 44 H FPAB2 NSBUS 45 H FPAB2 NSBUS 47 H FPAB2 NSBUS 46 H FPAB2 NSBUS 46 H FPAB2 NSBUS 47 H	2.5.18 2.5.18 2.5.18 5.18.2 5.18.2 5.18.2 5.18.2 5.18.2 5.18.2 5.18.2	FPA83 A8US 39 H FPA83 A8US 48 H FPA83 A8US 41 H FPA83 A8US 42 H FPA83 A8US 43 H FPA83 A8US 44 H FPA83 A8US 45 H FPA83 A8US 45 H FPA83 A8US 45 H	6.3 6.3 6.3 6.3 6.3 6.3 6.3 6.3	
FPAGI FPAGI FPAGI FPAGI FPAGI FPAGI FPAGI FPAGI FPAGI FPAGI FPAGI FPAGI FPAGI FPAGI FPAGI FPAGI	1 NSBUS 31 H 1 NSBUS 48 H 1 NSBUS 49 H 1 NSBUS 50 H 1 HSBUS 51 H 1 HSBUS 52 H 1 HSBUS 53 H 1 NSBUS 55 H 1 NSBUS 55 H 1 HSBUS 56 H 1 HSBUS 56 H	9,4.1 18,5,1 18,5,1 18,5,1 10,5,1 1,18,5 1,18,5 1,18,5 1,18,5 1,18,5	FPA82 HSBUS 39 H FPA82 NSBUS 40 H  FPA82 NSBUS 41 H FPA82 NSBUS 42 H FPA82 NSBUS 43 H FPA82 HSBUS 44 H FPA82 NSBUS 45 H FPA82 NSBUS 46 H FPA82 NSBUS 46 H FPA82 NSBUS 47 H FPA82 NSBUS 47 H FPA82 NSBUS 48 H	2.5.18 2.5.10 5.18.2 5.18.2 5.18.2 5.18.2 5.18.2 5.18.2 5.18.2	FPA83 ABUS 48 H FPA83 ABUS 41 H FPA83 ABUS 42 H FPA83 ABUS 43 H FPA83 ABUS 44 H FPA83 ABUS 45 H FPA83 ABUS 45 H FPA83 ABUS 45 H FPA83 ABUS 46 H FPA83 ABUS 47 H	6.3 6.3 6.3 6.3 6.3 6.3 6.3	
FPAGI	1 NSBUS 48 H 1 NSBUS 49 H 1 NSBUS 50 H 1 NSBUS 51 H 1 HSBUS 52 H 1 HSBUS 53 H 1 NSBUS 54 H 1 NSBUS 55 H 1 NSBUS 56 H 1 NSBUS 56 H 1 NSBUS 56 H	18.5.1 18.5.1 18.5.1 10.5.1 1.18.5 1.18.5 1.18.5 1.18.5 1.18.5	FPAGE NSBUS 48 H  FPAGE NSBUS 41 H  FPAGE NSBUS 42 H  FPAGE NSBUS 43 H  FPAGE NSBUS 44 H  FPAGE NSBUS 45 H  FPAGE NSBUS 46 H  FPAGE NSBUS 47 H  FPAGE NSBUS 46 H	5,18,2 5,18,2 5,18,2 5,18,2 5,18,2 5,18,2 5,18,2	FPA83 ABUS 42 H FPA83 ABUS 43 H FPA83 ABUS 44 H FPA83 ABUS 45 H FPA83 ABUS 46 H FPA83 ABUS 47 H	6.3 6.3 6.3 6.3 6.3 6.3	
FPAGI FPAGI FPAGI FPAGI FPAGI FPAGI FPAGI FPAGI FPAGI FPAGI FPAGI FPAGI FPAGI FPAGI	1 NSBUS 49 H 1 NSBUS 50 H 1 HSBUS 51 H 1 HSBUS 52 H 1 HSBUS 53 H 1 NSBUS 54 H 1 NSBUS 55 H 1 HSBUS 56 H 1 HSBUS 56 H	18.5,1 18.5,1 18.5,1 1.18,5 1.18,5 1.18,5 1.18,5 1.18,5	FPAB2 NSBUS 41 H FPAB2 NSBUS 42 H FPAB2 NSBUS 43 H FPAB2 NSBUS 44 H FPAB2 NSBUS 45 H FPAB2 NSBUS 46 H FPAB2 NSBUS 47 H FPAB3 ABUS 68 H	5,18,2 5,18,2 5,18,2 5,18,2 5,18,2 5,18,2	FPA03 ABUS 43 H FPA03 ABUS 44 H FPA03 ABUS 45 H FPA03 ABUS 46 H FPA03 ABUS 47 H	6,3 6,3 6,3 6,3	
FPAB1	1 NSBUS 50 H 1 HSBUS 51 H 1 HSBUS 52 H 1 HSBUS 53 H 1 NSBUS 55 H 1 NSBUS 55 H 1 HSBUS 56 H 1 NSBUS 57 H	18,5,1 10,5,1 1,19,5 1,10,5 1,10,5 1,10,5 1,10,5 1,10,5	FPAB2 NSBUS 42 H FPAB2 NSBUS 43 H FPAB2 HSBUS 44 H FPAB2 NSBUS 45 H FPAB2 NSBUS 46 H FPAB2 NSBUS 47 H FPAB2 NSBUS 47 H FPAB2 NSBUS 48 H	5,18,2 5,18,2 5,18,2 5,18,2 5,18,2	FPA83 ABUS 박박 H FPA83 ABUS 박5 H FPA83 ABUS 박6 H FPA83 ABUS 박7 H	6.3 6.3 6.3	
FPAGI FPAGI FPAGI FPAGI FPAGI FPAGI FPAGI FPAGI FPAGI FPAGI	1 HSBUS 52 H 1 HSBUS 53 H 1 HSBUS 54 H 1 HSBUS 55 H 1 HSBUS 56 H 1 HSBUS 56 H	18.5.1 1.18.5 1.18.5 1.18.5 1.18.5 1.18.5	FPAB2 NSBUS 43 H FPAB2 HSBUS 44 H FPAB2 NSBUS 45 H FPAB2 NSBUS 46 H FPAB2 NSBUS 47 H FPAB3 ABUS 68 H	5,18,2 5,18,2 5,18,2 5,18,2	FPA03 ABUS 45 H FPA03 ABUS 46 H FPA03 ABUS 47 H	6.3 6.3 6.3	
FPABI FPABI FPABI FPABI FPABI FPABI FPABI FPABI FPABI FPABI FPABI	1 MSBUS 53 M 1 MSBUS 54 M 1 MSBUS 55 M 1 MSBUS 56 M 1 MSBUS 57 M	1,10,5 1,12,5 1,18,5 1,18,5 1,18,5	FPAB2 NSBUS 45 H FPAB2 NSBUS 46 H FPAB2 NSBUS 47 H FPAB3 ABUS 88 H	5,10,2 5,10,2 5,10,2	FPAG3 ABUS 46 H FPAG3 ABUS 47 H	6.3 6.3	
FPAB1 FPAB1 FPAB1 FPAB1 FPAB1 FPAB1 FPAB1 FPAB1 FPAB1	1 NSBUS 54 H 1 NSBUS 55 H 1 HSBUS 56 H 1 NSBUS 57 H	1,10,5 1,10,5 1,18,5 1,18,5	FPA02 NSBUS 46 H FPA02 NSBUS 47 H FPA03 ABUS 00 H	5,10,2		6.3	
FPA81 FPA81 FPA81 FPA81 FPA81 FPA81 FPA81 FPA81	1 NSBUS 55 H 1 NSBUS 56 H 1 NSBUS 57 H	1.10,5 1.18,5 1.18,5	FPA02 NSBUS 47 H FPA03 ABUS 00 H		FPART ARUS 48 H		
FPA21 FPA01 FPA01 FPA01 FPA01 FPA01	1 NSBUS 57 H	1,18,5	FPA03 ABUS 00 H	- · · · · · · · ·		6.3	
FPA81 FPA81 FPA81 FPA81 FPA81				7,3	FPA03 ABUS 49 H FPA03 ABUS 50 H	6.3 6.3	
FPA81 FPA81 FPA81 FPA81			FPAGS ABUS 81 H	7.3	FPA83 ABUS 51 H	3,6	
FPA01 FPA01 FPA01			FPA03 ABUS 02 H	7.3	FPAØ3 ABUS 52 H	3,6	
FPA01 FPA01		1,10,5 1,10,5	FPA03 ABUS 03 H	7.3	FPA@3 ABUS 53 H	3,6	
FPA01		1,18,5	FPA03 ABUS 04 H FPA03 ABUS 05 H	7.3 7.3	FPA03 ABUS 54 H	3,6	
FP901	I HSBUS 62 H	1,18,5	FPA03 ABUS 86 H	7,3	FPA03 ABUS 55 H FPA03 ABUS 56 H	3,6 3,6	
		17,16,1,18,5 2,1	FPA83 ABUS 87 H	7.3	FPA03 A0US 57 H	3.6	
		15.1.6.16.14	FPA03 ABUS 08 H FPA03 ABUS 09 H	7.3 7.3	FPA03 ABUS 58 H	3,6	
FPA62	2 EMOD + MBUS 08 L	2	FPA03 ABUS 10 H	7,3	FPA03 ABUS 59 H FPA03 ABUS 60 H	3.6	
		5	FPA@3 ABUS 11 H	7,3	FPAGS ABUS 61 H	3,6 3,6	
		2	FPAG3 ABUS 12 H	3.7	FPA03 ABUS 62 H	3.6	
FPA92	2 EMOD + MBUS 11 L	2	FPA03 ABUS 13 H	3,7	FPA03 ABUS 63 H	3,6	
FPA82		5	FPAG3 ABUS 14 H	3,7	FPA@3 ABUS 64 H	3.6	
FPA62	2 EMOD + MBUS 14 L	2	FPA03 ABUS 15 H FPA03 ABUS 16 H	7.3 3.7	FPA03 ABUS 65 H	3.6	
FPA62	2 EMOD + MBUS 15 L	2	FPA03 ABUS 17 H	3,7	FPA03 ABUS 66 H FPA03 ABUS 67 H	3.6	
		4.2 4.2	FPAG3 ABUS 18 H	3,7	FPA03 PULLUP 1 H	3,6,2,1,7	
FPA82		4,2 4,2	FPA03 ABUS 19 H FPA03 ABUS 20 H	3.7 3.7	FPAG3 PULLUP 2 H	11,12,3	
FPAB2	NSBUS 83 H	4,2	FPA03 ABUS 21 H	317	FPA03 PULLUP 3 H FPA03 PULLUP 4 H	15,14,16,3 21,17,28,3	
FPA62	NSBUS 04 H	2,4	FPAG3 ABUS 22 H	3,7	FPAGS STICKY BIT L	7.3	
			The state of the s	, v	FPHOS SILLET BLI C	/ · 3	
•		NOTES:					
		I HIS PAGE LIST	ITS THE SCHEMATIC PAGE NUMBER(S) WHERE A SIG	HAL NAME IS REFERENCED.			
THE PROPERTY OF REVI: THE PROPERTY OF REVI: WHICH COMPOSED ON COPIES CHIC CHANG THE HOUR FACULE COI S UNIVERSITIES COPYRIGHT (D. 181) HIT CORPOSE (194)							

7 92-0-10007 SD 0 8 6 5 2 ... 3 4 1 JIGNAL NAME PAGE NUMBER(S) SIGNAL NAME PAGE NUMBER(S) PAGE NUMBER(S) SIGNAL NAME FPOR AT H FP986 HOLDIF ! FP907 1C5 L FPA06 CB L 7,6 FPA86 1P84 L FP987 1C6 L FP987 1C7 L 6.7 6.7 6,7 FPA06 C1 L 6,7 FP906 IP85 L 7.6 FPAR C2 L 6.7 7.6 FPA87 IP88 L FPAGG C3 L 6,7 FPA06 1P87 L FP887 1981 L FPA96 C4 L FPORS PRY I FPA87 1P82 L FPAR C5 L FP986 P85 L FPR87 1983 L FPAGE CE L FPA06 P06 L FPAGZ MUXCI L 6,7 FP996 C2 I FP996 P97 L 7.5 6.7 FPARG CLEAN FOY L 12,6 FPA07 FPBUS00 H 7,2 FPA87 P81 L FPAGG DONE NEXT L 12.6 FPA07 FPBUS01 H FPA87 P82 L 7,2 2,2 6,7 FPARS FOV H 6,15 FPA87 FP8US82 H FPA07 P03 L 2,2 2,7 2,7 2,2 7,2 FPA66 FPBUS32 H 2,6 FPA8Z FP8US83 H FPORR HIFR & H 21.18.9.8 2,6 FPA06 FPBUS33 H FPA07 FP8US04 H FPAGE MIFR 1 H 21.18.9.0 FPA06 FPBUS34 H 2,6 FPA87 FPBUS95 H FPARS MIER 2 H 21,10,9,0 5.6 FPARS FPRUS35 H FPA87 FP8US86 H FPAGE MIER 3 H 18.9.8 FPA06 FPBUS36 H FPA87 FP8US87 H FPAGE MIER 4 H 21,10,9,8 FPA06 FPBUS37 H FPA87 FP8US88 H FPARS HIER 5 H 21,10,9,8 FPAG6 FPBUS38 H FPA87 FP8US89 H FPAOR HIER 6 H 21,10,9.8 FPA66 FP8US39 H 2,6 FPA87 FPBUS18 H 7,2 FPAR MIER 2 H 18,9,8 FPA86 FP8US48 H 6,2 FPA67 FPBUS11 H 7,2 7,2 FPA89 M81 8 H 13.9 FPA06 FP8US41 H 6,2 FPA87 FP8US12 H FPA89 M81 1 H 13,9 6.2 6.2 FPA66 FP8US42 H FPA07 FP0US13 H 7,2 FPA89 M81 18 H 9,11 FPARG FPRUSES H 7.2 7.2 7.1 7.1 FPARZ FPBUSIN H FPA89 M81 11 H 9,11 FPA06 FPBUS44 H FPA07 FP0US15 H FPA89 M81 12 H 9,11 FPA06 FPBUS45 H 6,2 FPA07 FFBUS16 H FP989 M81 13 H 9,11 FPA06 FPBUS46 H FPA82 FP8US12 H FP909 M01 14 H 9,11 FPA66 FP8US42 H 2,1 FPA02 FPBUS18 H FPA09 M01 15 H 9,11 FPA06 FPBUS48 H FPA87 FP8US19 H 7,1 7,1 FP989 191 2 H 13.9 FPAGE FPBUSHS H 8.1 FP407 FP8US20 H FPA69 #61 3 H 13,9 FPAAS FPRISSA H 6.1 6.1 FPA07 FP0US21 H 7,1 FPA89 M81 4 H 13.9 FPA06 FP8US51 H FPA07 FPOUSEE H 7,1 2,1 FP989 M81 5 H 13.9 FPAØ6 FPBUS52 H 1,6 FPA87 FPBUS23 H FP989 M81 6 H 13.9 FPA06 FPBUS53 H 1,6 FPARZ FPRUSZY H 2,1 FPA89 M81 7 H 13.9 1,6 1,6 1,6 FPARS FPRUSSY H FPA07 FP8US25 H 7,1 FPA89 M81 8 H 9,11 FPA06 FPBUS55 H FPA62 FPBUS26 H 2.1 FP989 M81 9 H 9,11 00 SIM COOK | NUMBER | 0-0-06 В FPA06 FPBUS56 H 11.9 FPAG2 FPBUS22 H FPA69 M12 8 H 2.1 FPA66 FPBUS57 H FPA07 FPBUS28 H 2,1 11,9 FPA66 FPBUS58 H 1,6 FPA07 FP0US29 H 2,1 FPA89 MI2 18 H 9,11 FPA66 FPBUS59 H FP989 H12 11 H FPA02 FP0US30 H 7,1 9,11 FPA66 FPBUS68 H 1,6 FPA07 FP8US31 H 6,7,1 FPA09 M12 12 H 9,11 FPAGE FPBUSE! H 1,6 FPA07 G00 L 7,6 FP909 MI2 13 H 9,11 FPA06 FP8US62 H FP909 HI2 14 H FPA87 G81 L 6,7 6,7 FPA06 FPBUS63 H FPA87 G82 L FPA09 #12 15 H 9,11 FPARS FS H 16,7,6 FPA07 G83 L 6.7 FPA09 H12 2 H 11,9 FPA06 FS L 6,8,16 FPA87 ICB L FPA89 M12 3 H 11.9 FPA06 G04 L 11,9 FPA82 101 L FP989 H12 4 H FP406 G05 L FPA07 IC2 L FPA89 H12 5 H 11.9 FP906 G06 L FPA07 1C3 L FPA89 H12 6 H 11,9 FP906 G07 L 11,9 6,7 FPA09 H12 7 H FPA87 IC4 L 1. THIS PAGE LISTS THE SCHEMA IC PAGE NUMBER(S) WHERE A SIGNAL NAME IS REFERENCED. DATE ENG. DATE SOURCE ACT OF THE TOP OF THE REVISIONS

REVISIONS FORWARD REFERENCE SIZE CODE NUMBER D CS L0001-0-26 7 8 5 3 6 4

	8	7	·	6	5	V	4	3 2	B 82-8-18081 SJ 2003	1	
									1/438 NUMBER 186V.	MIS	
D											1
"		IGNAL HAME	PAGE NUMBER(S)		SIGNAL NAME	PAGE NUMBER(5)		SIGNAL NAME	PAGE NUMBER(5)		D
	-	FPA11 PP52 H	11.13		FPA14 NZ H	15 14	<del></del>		· ince indicents?		1
	F	PA11 PP53 H	11,13		FPA14 SØ H	15,14 14,2,6,3		FPA12 BUTCTRL3 H FPA12 BUTCTRL4 H	17 17		
		FPAT1 PP54 H FPAT1 PP55 H	11,13		FPAIN SI H	14,7,6,3		FPA12 BUTCTRL5 H	17		1
	F	PA11 PP56 H	13,11		FPA14 52 H . FPA14 53 H	14,3 14,3		FPA17 BUTCTRL6 H FPA17 BUTCTRL7 H	17		
		FPA11 PP57 H FPA11 PP58 H	13,11 13,11		FPA14 54 H	14.3		FPA17 CPU NOP L	17 - 1 <b>7 -29</b>		
		PA11 PP59 H	13,11		FPA14 55 H FPA14 5GE64 L	14.3 14.2.6		FPA17 CPU RD FCC L	21.17		i
		PA11 PP68 H	13,11		FPA14 SHIFTB H	14,2,1		FPA17 CPU RD FPA H FPA17 CPU RD FPA L	21,17 17,1		
		PA11 PP61 H	13,11		FPAIS EXBUS B H	15,14,21		\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \			
		PA11 PP62 H	13.11		FPA15 EXBUS 1 H	15,14,21		-FPA17 CPU HR DOT H	12,14		
		PA11 PP63 H PA11 PP8 H	13,11 13,11		FPA15 EXBUS 2 H	15,14,21		-FPA17 CPU HR MBUS H			
		PA11 PPS H	13,11		FPA15 EXBUS 3 H FPA15 EXBUS 4 H	15,14,21 15,14,21		FPA17 CPU HR SLL H	12.15		1 1
		PAI2 DCIN N PAI2 DC2N N	11,12		FPAIS EXBUS 5 H	15,14,21		-FPA17 CPU HR SLL H -FPA17 CPU HR HBUS H	1 <i>7</i> I B		
		PA12 MC2L H	11,12		FPA15 EXBUS 6 H FPA15 EXBUS 7 H	15,14,21 15,14,21		FPA17 CPUFPAG H	17		
C	F	PAIS MC3H H	12,11		FPA15 EXBUS 8 H	15,14,21		FPA12 CPUFPA1 H FPA12 CPUFPA2 H	17 17		С
		PAIS MC4H H	11.12		FPA15 EXBUS 9 H	15,14,21,17					
					FPA15 FEX 8MUX H	15		FPA!Z CPUFPA3 H	17		
		PA12 MC5H H PA12 MC6H H	11,12		FPA15 FEX CIN L	15		FPA12 CSADRO H	17,19,18,23		
	F	PA12 MC6L H	12,11		FPA15 FEXPACX0 H FPA15 FEXPACX1 H	15 15		FPA17 CSADR1 H	17,19,18,23		
-		PA12 MC2H H	11,12		FPA15 FEXPACK4 H	15		FPA17 CSADR2 H	17,19,18,23		
		PA12 OMC3L H PA12 OMC5L H	12,11		FPA15 LIT + MBUS 07 L FPA15 LIT + MBUS 08 L	15.14		FPA17 CSADR3 H	17,19,18,23		
-	.Ì F	PA12 OMCZL H	12,11		FPA15 LIT + MBUS 09 L	15,14 15,14		FPA17 CSADR* H	17,19,18,23	•	
		PA12 0MG3L L PA12 0MG5L L	15		FPA15 LIT + MBUS 18 L	15,14		FPA17 CSADR5 H	12,19,18,23		
		PA12 DMG7L L	15		FPA15 LIT + MBUS 11 L FPA-5 LIT + MBUS 12 L	15 <b>.14</b> /5.14		FPAIZ CTR COUT H FPAIZ DIV H	17 15417		
		PA12 OHP3L L						ELMIN DIA W	73417		
		PAIS OMPSL L	15		FPA15 LIT + M8US 13 L FPA15 LIT + M8US 14 L	15,14 15,14		-FPAI7 FLOATING OPER			2 co
	F	PAI2 OMP2L L	12		FPA15 MUX EXP ALEG1 H	15		FPAIZ 1R01 H FPAIZ 1R02 H	16,17 6,16,17		Z -
		PA13 CLK PPR L PA13 PPOEH L	13 13		FPA15 MUX EXP BLEGB H	15					1 1
В	F	PA14 (FQAOEH & AGEB) H	15,14,16		FPA15 MUX EXP BLEG2 H FPA15 MUX EXP LDA L	15 15,14		FPAIZ IR <b>04 H</b> FPAIZ MSEQ INIT H	16,17 17,19		
"		PA14 (FQAOEN & AGEB) L PA14 A GE B H	15.14 14		FPA15 SLL H	16:15:1		FPA17 USTART H	19,17,29,23		20
		PA14 BE H	14,2,6		FPA15 SLL L FPA16 EXA EQ Z H	15,16 6,16,1		-FPA12 LISTART H -FPA12 WBUS OPERAND	19,17 H 16,17		2 -
	FI	PA14 CS LEFT 64 H	14,3		FPA16 EXA EQ Z L	17,14,6,16		THE MODE OF EXHIBIT			87-0-10001 S3 Q
	F	PA14 CSL64 H	14,2,6		FPAIS EXB EQ 2 H	17,1,16		FPA18 ADD/SUB H	15,18,14,1,6,7,23		20
		PA14 FOADEH H	14		FPA16 FFADIF H	16,6,7		FPAIB CCB H	21,18,23		20
		PA14 FOAOEH L PA14 NØ H	14 15,14		FPA16 RES OP H FPA16 SIGNA H	17,21,16		FPA18 CC1 H	21,18,23		20
	FI	PAIS NI H	15,14		FPA16 SIGNB H	21,16,1 <i>7</i> 16		FPA18 CC2 H FPA18 CC3 H	21,18,23 21,18,23		В
		PA14 N2 H PA14 N3 H	15,14 15,14		FPA16 SIGNX H	16		FPATE EN SET SLL H	18,15,23		H
	F	PAI4 N4 H	15,14		FPA16 HBUS EXP B H FPA17 BUTCTRLB H	16 12		FPAIB EXP ALEGO H	15,18,23		1 1
		PA14 N5 H PA14 N6 H	15,14 15,14		FPA12 BUTCTRL1 H	17		FPAIB EXP ALEGI H	15,18,23		
	-		13117		FPA12 BUTCTRL2 H	17		FPA18 EXP ANUX8 H	15,18,23		
	1										
-	***************************************		NOTE		340F 11 110CC 17 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1						
A				1. THIS PAGE LISTS THE SCHEMATIC	THUS NUTBER(5) WHERE A SIGNA	L NAME IS REFERENCED.					A
ĺ											
	1										
										•	
	THE PARTY OF	REVISIONS						TITIORN. POM DATE	IENG. DATE TIT	TLE:	
	Seen HOT BE REPORTED ON COPIED CHEK	CHANGE NO. REV					didi	CHX D. DATE	<b>4</b> 1	FORWARD REFERE	ENCE
	THE BASIS FOR THE PROSPECTURE OF SALE OF SETS ALTHOUT ANTICLE PROSPECTURE OF SALE OF S	1					(164,122)	FPA28.DRH   28-001-81 15:89 N	SHEET JOE J  EXT HIGHER ASSEMBLY: S16	PE CODE NUMBER	REV.
		<del></del>					FIRST USED O	OPTION/MODEL: FP750 E	3-DD-L0001-0-0 D	CS L0001-0-28	<u>IB</u>
	8	7		6	5	- ↑ 4	•	3	2	1	

SIGNAL NAME	PAGE NUMBER(S)	SIGNAL NAME	PAGE NUMBER(5)	SIGNAL NAME	PAGE NUMBER(5)	
FPA18 EXP AMUX1 H FPA18 EXP BLEGØ H FPA18 EXP BLEG1 H	15,18,23 15,18,23 15,18,23	-FPA19 LD CTR H FPA19 LDPPR H	19,17,23 13,19,23	-FPA21 FPA TRAP H -FPA21 FPA V H	21 21	
		FPA19 LMR1 H	19.17.8.23	-FPA21 FPA Z H -FPA21 LDPSL H	21 .17	
FPAI8 EXP BLEGZ H -FPAIB EXP CIH H	15,18,23 18,15,23	FРА19 111100 Н FРА19 11111 Н	19,77,8,23 19,17,8,23	-FPA21 M CLK H -FPA21 RFTC H	21 .17 21	
-FPAIB EXP LD A H	15,18,23	FPA19 MM2 H	19,17,8,23	-FPA21 UR FPAENA H	21	
-FPA1B EXP LD 8 H -FPA1B EXP LD X H	15,18,23 15,18,23	FPA19 MMRØ H	19,8,23	WELLER DR 11		
FPATB EXP RND H	18-15-23	FPA19 MMR1 H	19,8,23	-MBUS 00 H -MBUS 01 H	1,2 1,2	
COALD FUR TO HOUS !!	15 10 22	FPA19 ITTR2 H	19.8.23	-MBUS 02 H	1,2	
FPA18 EXP TO HBUS H FPA18 FQA ASEL8 H	15,18,23 14,18,23	-FPA19 NEXT <b>00</b> H FPA19 NEXT <b>00</b> 8 H	17,19,23 19,23	-MBUS 03 H	1,2,15	
FPAIB FQA ASELI H	14,18,23	-FPA19 NEXTO1 H	17,19,23	-MBUS 04 H	2,1,15	
FPAIR FOR BSELO H	18,14,23	-FPA19 NEXTO2 H	17,19,23	-MBUS 05 H	2.1.15	
FPAIB FQA BSEL1 H FPAIB FQA BSEL2 H	14,18,23 14,18,23	-FPA19 NEXTB3 H	17,19,23	~MBUS 26 H	2.1	
	. 1.0123	-FPA19 NEXT04 H	17,19,23	-™8US 87 H -M8US 88 H	1,2,16,15 2,16,15	
FPA18 FQA DEH H	18,14,23	-FPA19 NEXTOS H	17,19,23	-maus 89 H	2,16,15	
FPA18 LD 8 FR WBUS H	15,18,2,1,23	FPA19 NEXTOG H	19,18,23			
FPA18 LD EMOD H	21,18,2,23			-MBUS 18 H	2.16.15	
FPA18 LD SIGNA H FPA18 LD SIGN8 H	18,16,23 18,16,23	FPA19 NEXT87 H FPA19 NEXT08 H	19,18,23 19,18,23	-MBUS 11 H	2,15,16	
		FPA19 PPOEN H	19,13,4,5,23	-MBUS 13 H -MBUS 13 H	2,15,16 2,15,16	
FPA18 LSHIFT H FPA18 SIGN CTRL8 H	18,3,23 18,16,23	CDATO DEDG		-MBUS 14 H	2,15,16	
FPAIR SIGN CIRCS H	18,16,23	FPA19 PRRØ H FPA19 PRR1 H	19,20,7,6,23 19,20,7,6,23	-M8US 15 H	2,1	
FPAIR SIGN XOR H	18,16,23	FPA19 RNDD H	19.7,23	-1865 16 H	2	
FPAIB SIGNA TO HBUS 4 FPAIB SYNCHR UCODE DIS H	18,16,23	FPA19 RNDF H	19,6,23	-MBUS 17 H -MBUS 18 H	<b>2</b>	
		FPA19 RNDI H	19,7,23		•	
FPA18 UNPACKS H	18,1,23	FPA19 RT NORM H	19.6,23	-MBUS 19 H -MBUS 28 H	<b>2</b>	
FPA18 UNPACK1 H FPA18 UNPACK2 H	18,1,23 18,1,23	FPA19 SHEROMO H	19,14,23	-MBUS 21 H	2	
FPA18 UNPACK3 H	18,1,23	FPA19 SHFROM1 H FPA19 SHFROM2 H	19,14,23 19,14,23	-MBUS 22 H	5	
FPA18 UNPACKY H	18,1,23	FPA19 SHIFT B H	19,14,23	-M8US 23 H	2	
FPA18 WR WBUS H	18,1,23	FPAZO B CLK H	21,20,17,16	-118US 24 H -118US 25 H	1	
FPA19 ALU CIH H	19,7,23	-FPA2B DIV23 CLK EH H	28	-19872 S.P. H	i	
FPA19 BCOMPL H	19,6,23	FPA20 FP CLK H	13,28,14,23	-MBUS 27 H	1	
FPAIS BUTO H FPAIS BUTI H	19,17,23 19,17,23	-FPA28 FP CLK H	15,14,19,18,17,16,2,7,6,8,1,20	-MBUS 2B H	1	
FPA19 BUTZ H	19,17,23	-FPA20 FP CLK EH H	21,20	~MBUS 29 H -MBUS 38 H	1	
FPA19 BUT3 H FPA19 8ZERO H	19,17,23 19,14,23	FPA20 SYNC PHASE 1 H	14,20,16,2,1		·	
	. 2117163	-FPA28 SYNC PHASE 1 H FPA21 EXPOR H	15,28 21,17	-MBUS 31 H FIC81 XBUF 89 H	1 17	
FPA19 ENA CTR H	19,17,23	FPA21 FAULT H	21,17	MICSI XBUF BI H	17	
-FPA19 FPA STALL H FPA19 FPCLKØ H	19,17,23 20,19,23	-FPA21 FP RES OP H	21	MICBI XBUF 82 H	17	
FPA19 FPCLK1 H	19.28.23	-FPA21 FPA ENABLED H	21			
	NOTES: 1. THIS PAGE LISTS	THE SCHEMATIC PAGE NUMBER(S) WHERE A SIGNA	AL MAME IS REFERENCED.			

	8		7	6	5	V 4	ł	3	5 A 8E-0-1806	S) 0   3000 3215	1	
	· m. doine de de la company de											
İ												
					SIGNAL NAME	PAGE NUMBER(5)		SIGNAL NAME	PAGE NUMBER(5)			D
		SIGNAL NAME	PAGE NUMBER(S)		STOWN TWO IS	1100 11		3.00.00			1	
											2.0	į
		MICO2 XBUF 05 H MICO2 XBUF 06 H	12 12								Labove v.	į
		MICO2 XBUF 07 H -MICO4 LATCHED MBUS 15	17 H 16									ı
-	<del>- </del>	MICOY MEM STALL H -MICOZ UTRAP H	29 17								T T T T T T T T T T T T T T T T T T T	
		-UBI13 MSEQ INIT H	19,17									;
		내용US 00 H 내용US 01 H	21,1									i
		MBR2 83 H	21.1									i
		₩8US 85 H	! 21 , !									С
C		₩BUS <b>06 H</b>	21.1									i
		₩8U5 07 H ₩8U5 08 H	15,14,16,1									ł
		28US 09 H 28US 10 H	15,14,16,2									1
		ผ8บร 1º <b>H</b>	15,14,16,2									1
		₩8US 13 H	15,14,16,2 15,14,16,2									-
		1805 14 H	15,14,16,2									
P		WBUS 15 H	16.2									-
-		ывы≤ !7 Н ывы≤ 18 Н	5									2 a
and the same of th		₩8US 19 M	5 5									~ 60
8	3	иBUS 21 Н иBUS 22 Н	2									AUTHER 9
		ыви <b>5 23 н</b> ыви <b>5 24 н</b>	2									000
		WBUS 25 H	1									1 CS L 000
		H8US 26 H H8US 27 H	1									¥ 0
		H8US 28 H H8US 29 H	1		-							В
		₩8US 30 H ₩8US 31 H	1									
												-
			NOTE	· ·								
6	4		,,,,,	1. THIS PAGE LISTS THE SCHEMATIC	C PAGE NUMBER(S) WHERE A SI	GNAL NAME IS REFERENCED.						A
-												
-												
												1
	THIS DRAWING AND SPECIFICATIONS, SEREIN, ARE THE PROPERTY OF CIGITAL EQUIPMENT CORPORATION AND CHALL NOT BE REPRODUCED OR COPIED.	REVISIONS CHANGE HO. REV					d	igital CHE D.	DATE BURRD LUCALIUN:	ATE TITLE:  FORMARD	REFERENCE	
-	THIS DENDING AND SPECIFICATIONS. JEERIN, AND THE PROPERTY OF SIGITAL SQUIPMENT CONCURRATION AND SHALL NOT BE REPRODUCED ON COPIED THE BASIS FOR THE MANUFACTURE OR SHALL OF TERS WITHOUT WRITTEN FRANCE OF THEMS WITHOUT WRITTEN FRANCESION. COPPERENT COMPONATION: DIGITAL COUPPERT COMPONATION:						E 12	(160,1271)FPA30.DRH   38-JUL-81 14	SHEET L OF B2 NEXT HIGHER ASSEMBLT:	SIZE CODE NUI	MBER REV.	1
	B 8		7	6	5	<u> </u>	<u> </u>	3	5		1	_

				L
	<i>9</i>			
		41		
			San San	(